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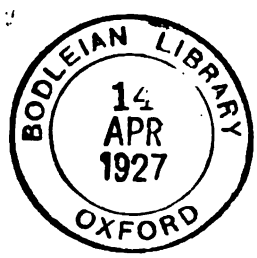
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WITH

DISSERTATIONS

ON THE RISE AND PROGRESS OF LITERATURE,
BY SIR D. K. SANDFORD, D.C.L., M.P.

ON THE PROGRESS OF SCIENCE,
BY THOMAS THOMSON, M.D., F.R.S. L. & E., &c. &c.

AND

ON THE PROGRESS OF THE FINE ARTS,
BY ALLAN CUNNINGHAM, Esq.

VOLUME III.—PART II.

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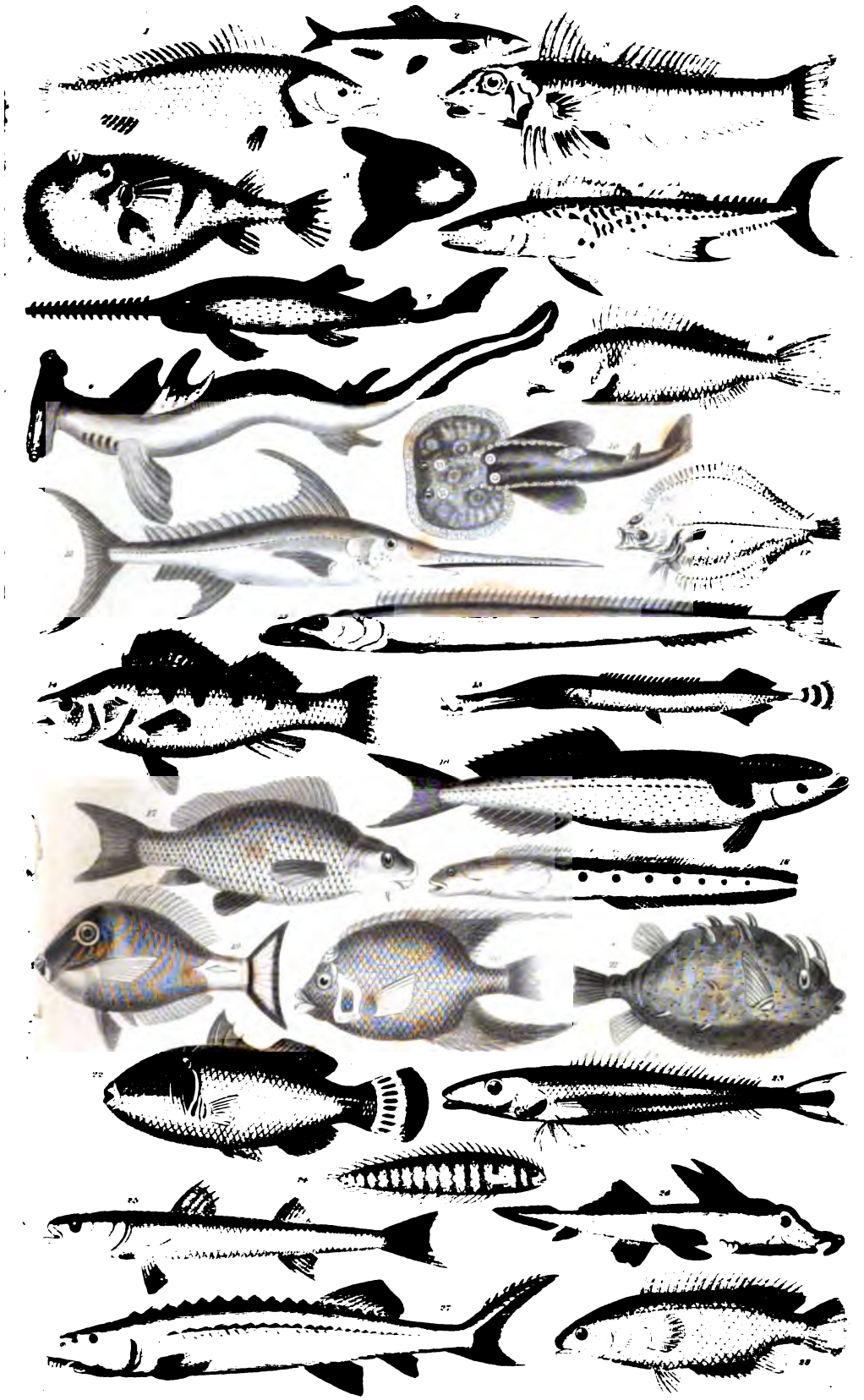

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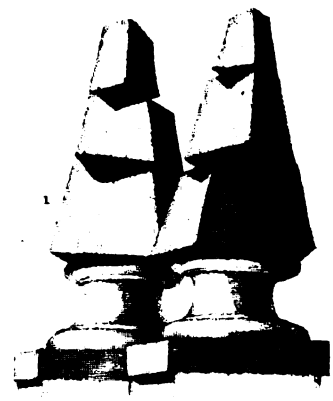

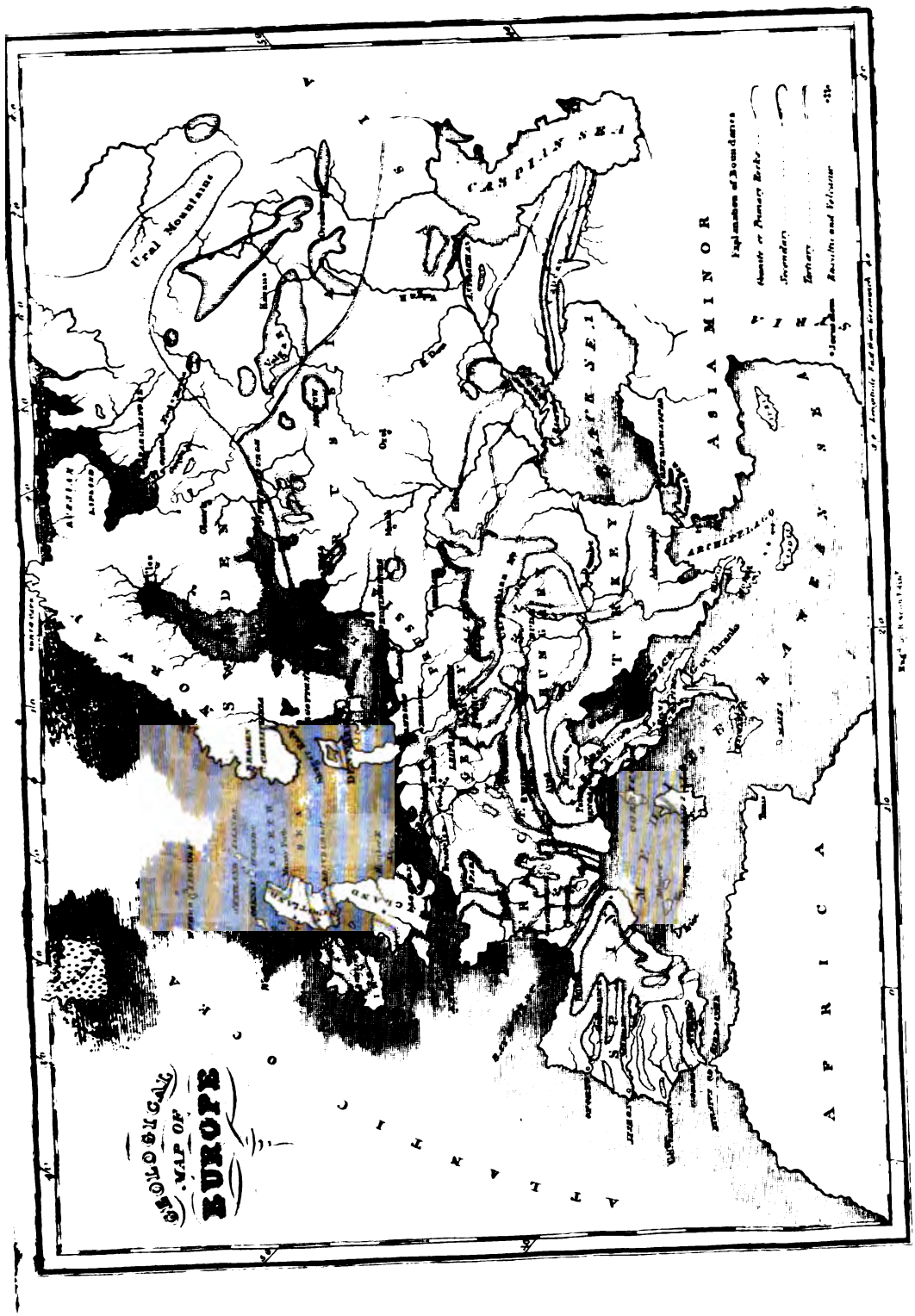

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Fig. 1.

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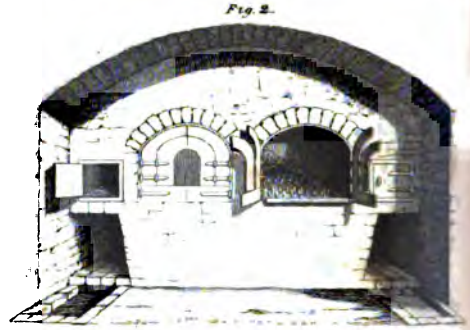

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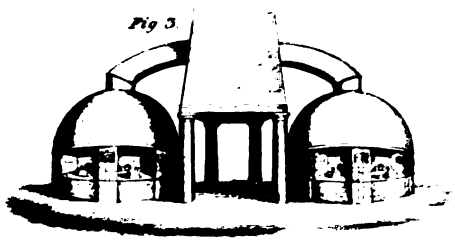

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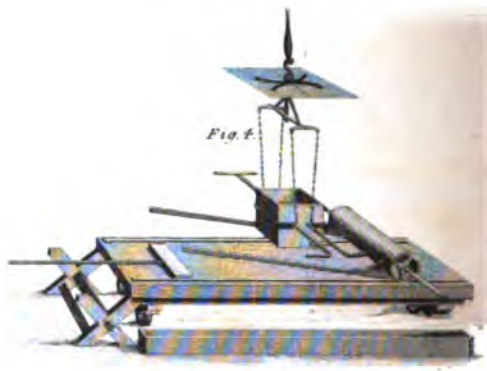

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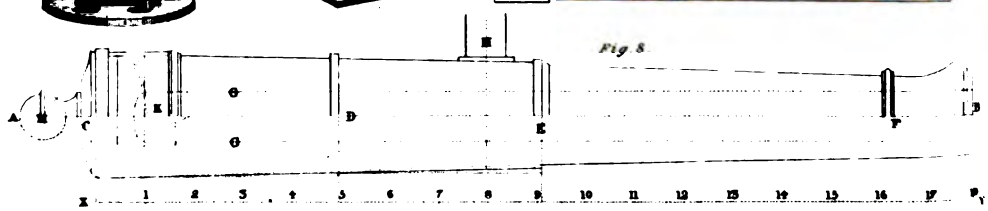

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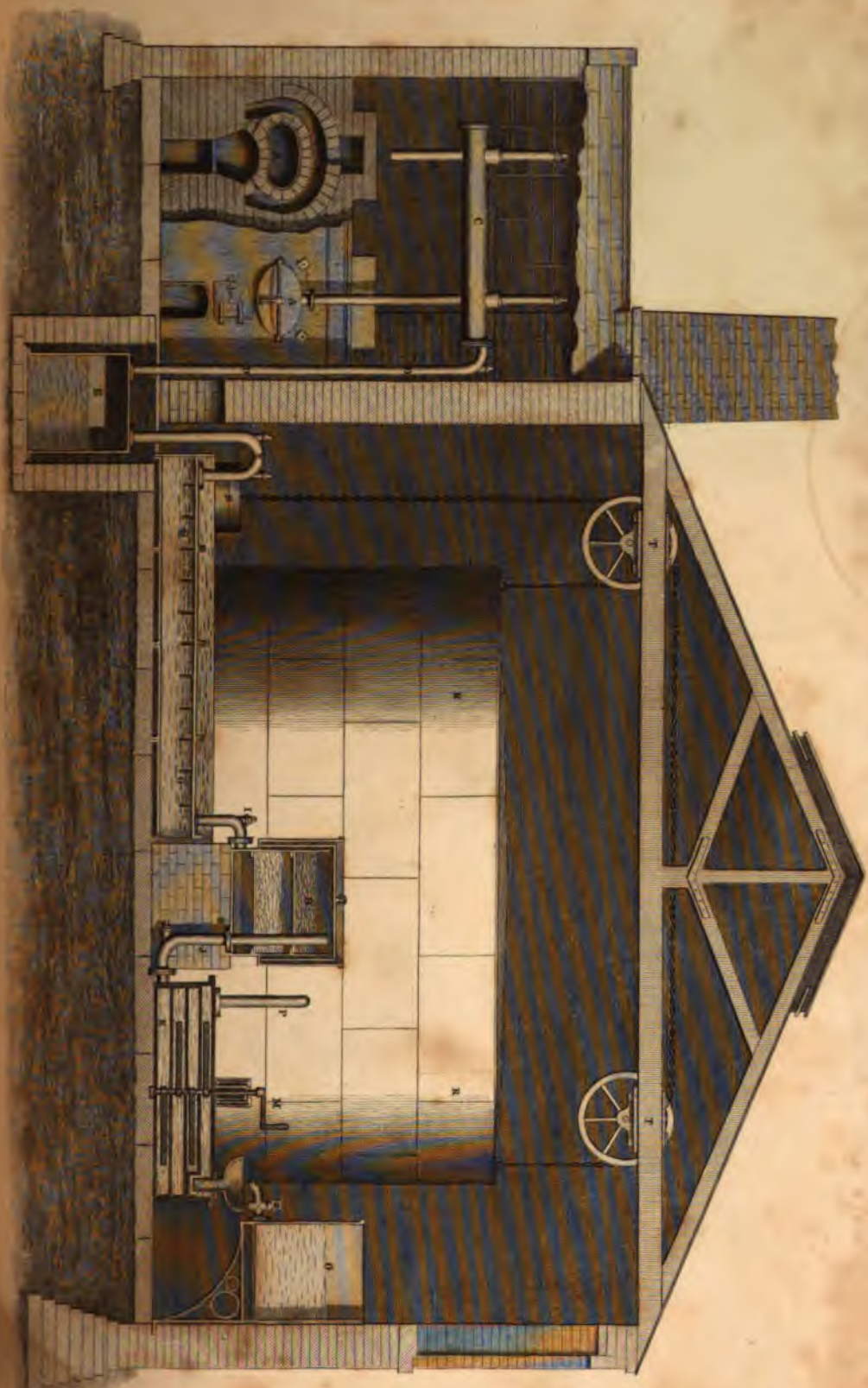
Fig. 13.

GAS APPARATUS.

PLATE XXXVIII.



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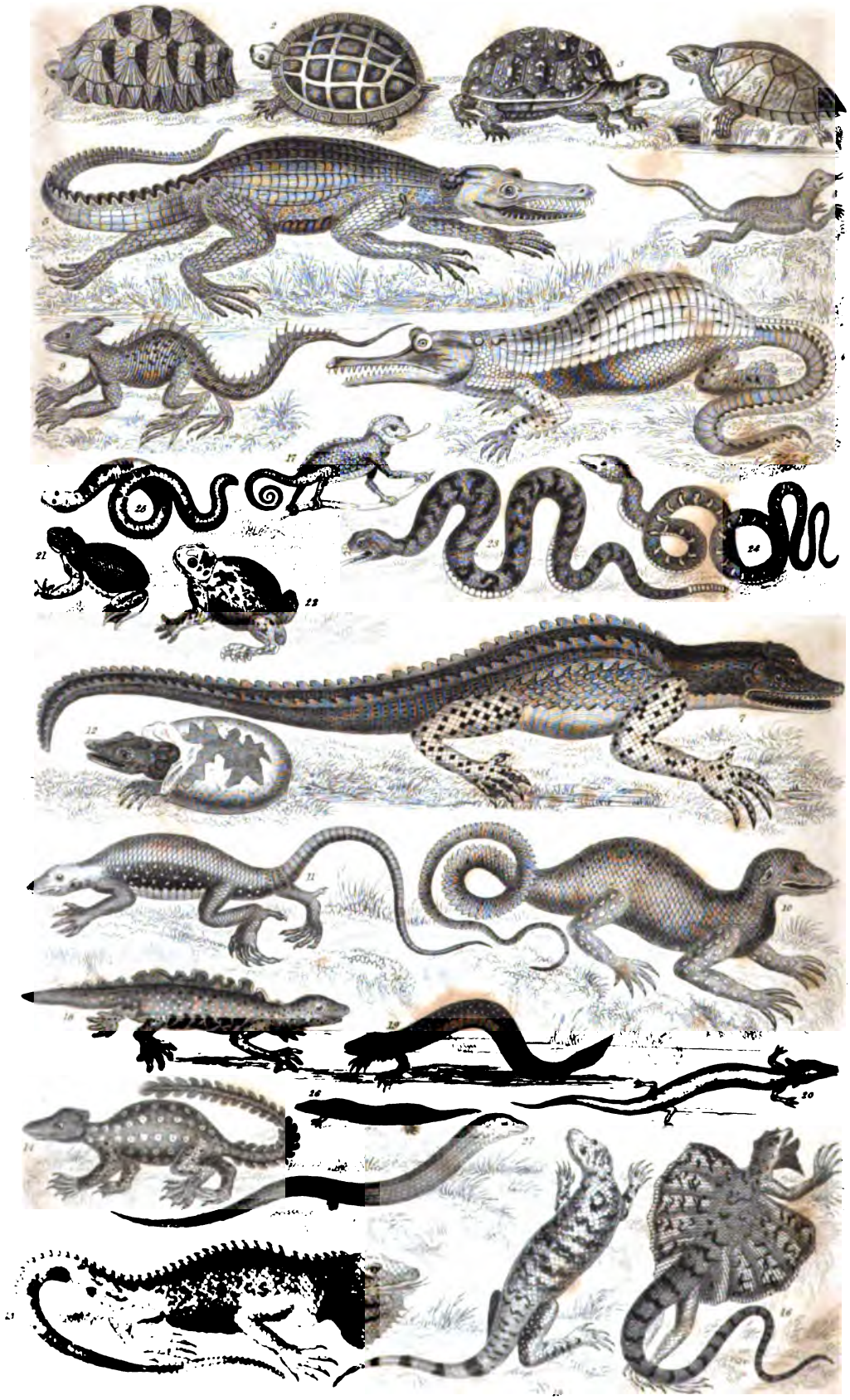

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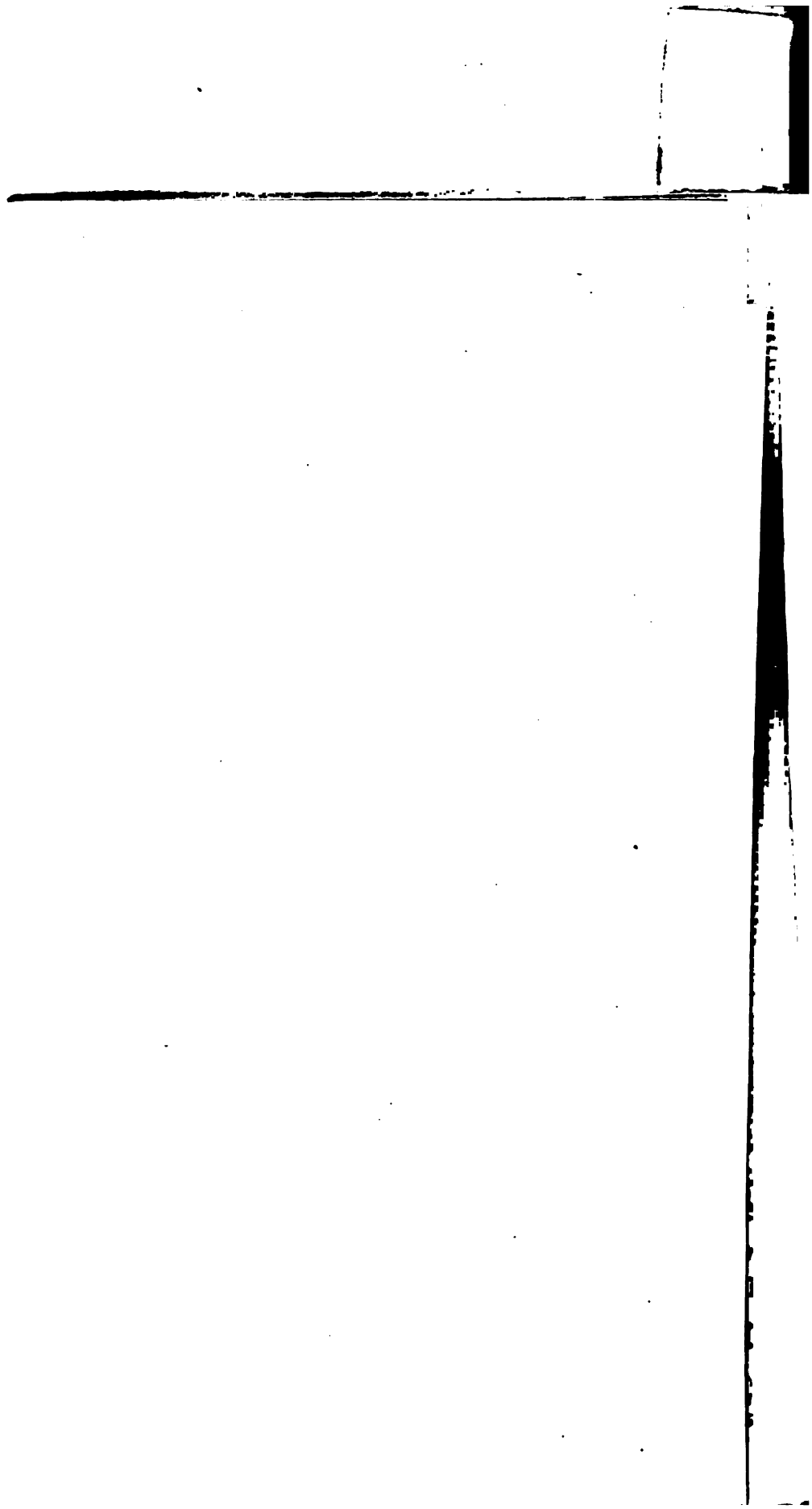

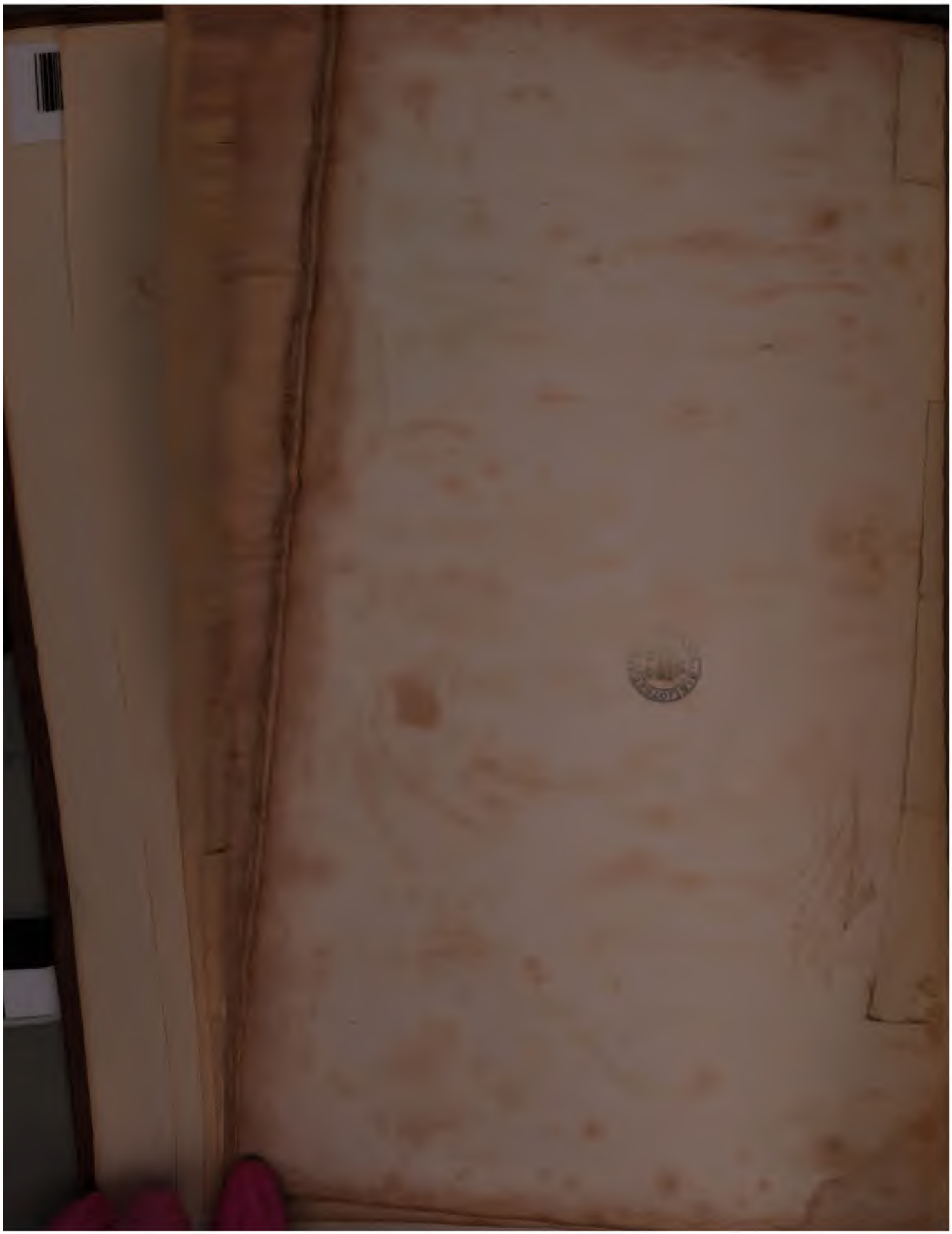

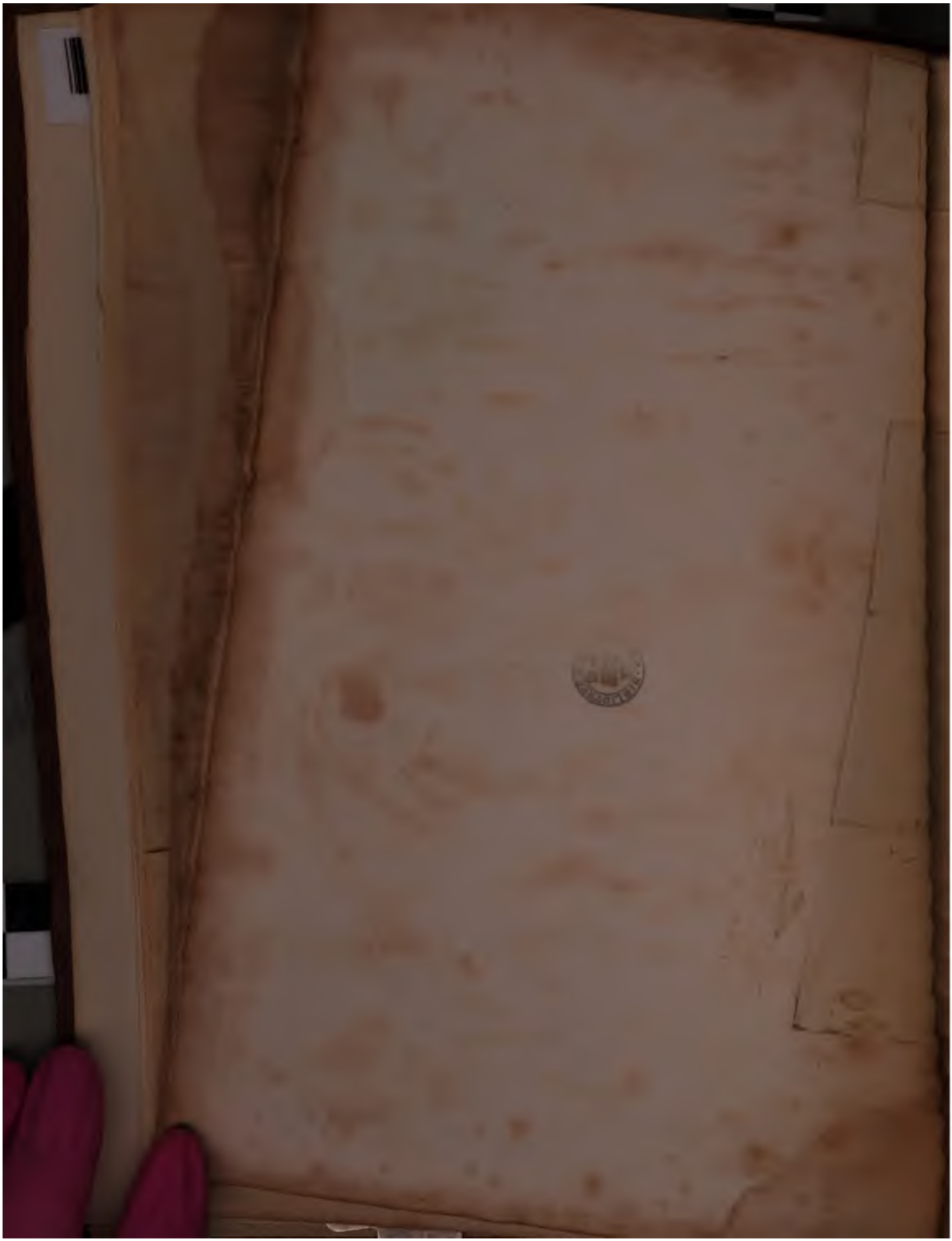

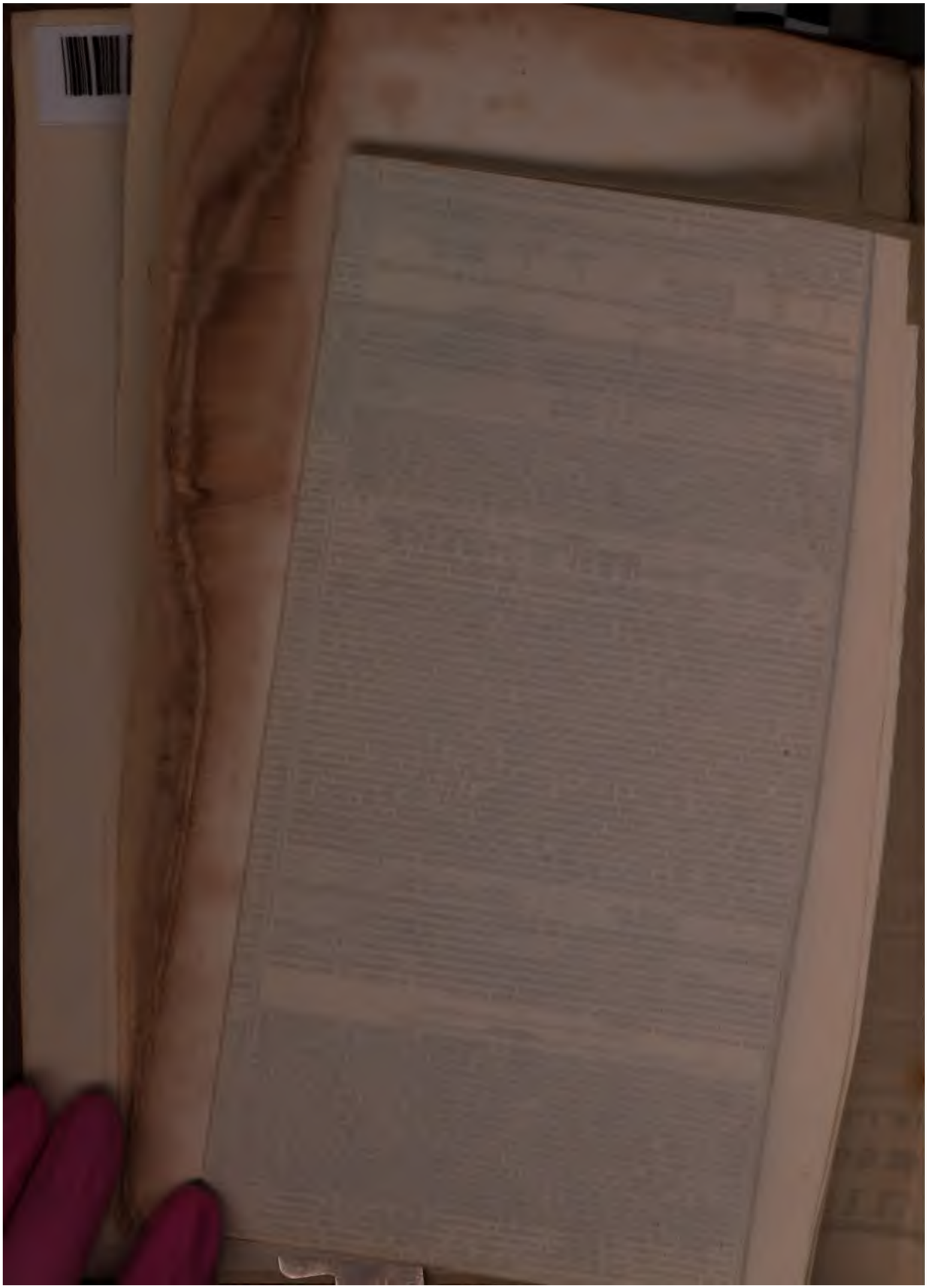

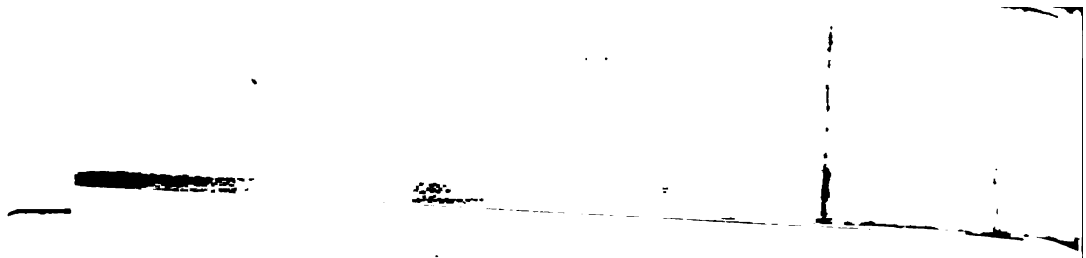

ON

THE RISE AND PROGRESS

OF

LITERATURE.

PART II.

bout four hundred and fifty years, from the iddle of the sixth century after Christ to the mmencement of the eleventh, may be marked rt as the period intervening between ancient id modern literature. At the first of these pochs, classical genius was already extinct; id purity of expression, in the classical tongues, as rapidly yielding to provincial corruptions id the influx of new elements of speech. At e second epoch, many causes conspired to ork a great change on the face and fabric of ciety, and on the manifestations of human in-llect. The ages that lie between, though con-ected by some evident links with those which llow them, have likewise some strong features eculiar to themselves. Throughout their course, e treasures of Greek and Latin composition, posed to constant danger of perishing, and paired by much actual loss, exerted no quick-ning influence even upon the minds of those ho still used the tongues to which they belong. ndeed, although the knowledge of these rich mains was, in lapse of time, revived with pro-gious effect, yet in the classic dialects them-lves, no valuable addition was ever again ade to the stores of polite learning. The story of Greek letters becomes now mixed up ith that of the Byzantine Power; and the fate both was the same. Neither fell at once by a dden stroke: but there was a gradual decline mental as of political strength. In vain, at e period, did the aspiring Bardas,* whose couragement of intellectual merit made some onement for his ambition and his crimes, call his aid the industry of Photius and the philo-phy of Leo, in an attempt to reproduce the irit of former days. Science, by these endea-urs, was partially restored; but there was no corresponding restoration of literary vigour or elegance. In vain, under the sway of the Comnenian family,† did the erudition of Psellus and Eustathius, the female enthusiasm of princess Anna, essay to fan, upon the altar of the muses, an expiring flame. Occasional, desultory efforts could not stay the death of arts and empire in the east of Europe. In each the vital principle had disappeared long before the sword of the Turkish conqueror inflicted a final blow.

Latin literature experienced a destiny not less deplorable. When province after province of the Roman dominions was overrun by the northern hordes; when the imperial schools were suppressed; when the monuments of ancient genius were eagerly destroyed; minds already enfeebled, and a language already debased, could not be expected to contend successfully against so many adverse circumstances. Abandoned, for the most part, to those of the priestly profession, Latin composition was thenceforth no longer cultivated in a refined and liberal spirit. During the seventh and eighth centuries it degenerated into the rudeness of the monkish style, full of barbarous words and grammatical errors. It is true, that in the ninth century the care bestowed by Charlemagne upon the details of education produced some purifying effect upon the writings of the cloister; that the tenth century was distinguished by increased zeal in the task of transcribing the classical authors, which was not unattended by good results; and that, in the eleventh, the Latin works of the Normans display traces, if not of high polish, at least of masculine force and freedom. But neither then, nor at any subsequent date, did there appear a specimen of prose or poetry, in the Roman tongue, eminent enough to be noticed

* Assassinated A. D. 866.

† A. D. 1057—1180.

in a sketch that can touch upon only the most prominent and attractive points of literary history.

Even, therefore, as regards the middle age, it seems a mere abuse of terms to talk of a *double* literature. There was certainly a double employment of language; the corrupted Latin being appropriated to one class of compositions, the vernacular dialects of Northern Europe to another. Latin was the repository of such systematic knowledge as the times could boast; it was used in the service of the church; in the chronicles that supplied the place of history; in the very songs of the soldiery of the southern countries, some of which still rank amid the most curious relics of the ninth and tenth centuries. But it was not the vehicle of any great productions, stamped with true genius, and deeply impressing the mind of posterity. Still, genius was not altogether sunk and lost in every part of Europe. There were yet sundry emanations of it, conceived in a national vein, and expressed in national tongues of great antiquity. For these we must look to the NORTH; a region which not only sent out its daring tribes to change the aspect of civil life, but which furnished, moreover, a fresh source of mental inspiration, destined at last to work together with the recovered influence of the classic spirit, and other prolific causes, in giving birth to the best portion of modern literature.

It is very easy for historical and literary inquirers to treat with contempt the intellectual achievements of our Celtic and Teutonic ancestors. Nevertheless it is certain that those proofs of a primitive relationship between them and the inhabitants of Greece, which are drawn from the affinities of language and of popular superstitions, may be strengthened by lively evidence that each people underwent the same process in first developing the mental faculties. Unfavourable circumstances long interfered with the regular growth and establishment of literature among the northern nations; but the grand elementary step towards a complete literature was very early attained by their independent efforts. Impulses, similar to those which awoke the Grecian lyre, operated with equal energy upon the natives of a less genial clime; and the poetry, thus called out from the depths of the human heart, was kindred in its character, as well as in its causes, with that, to whose first fruits, as far as their quality has been ascertained, we may, without injustice, compare it.

At the memorable epoch of the overthrow of the Roman dominion in the West,* the seats of the Teutonic race extended from the banks of the Rhine and the Danube to the rock-bound coasts of Norway. The victorious emigrants who occupied the southern provinces of Europe speedily lost their own forms of speech, which were broken down, together with those of the vanquished, into a jargon unfit for composition. But in Germany and Scandinavia, where the old language retained its purity, that species of song, which all we know of the state of manners in those districts at that time, and all we can gather from the analogies of history, prepare us to look for, continued to flourish. There, from the most distant era, which Latin† pens have described, the favourite attendants of chiefs and kings were those celebrated BARDS who preserved, in their traditionary strains, the memory of great events, the praises of the gods, the glory of warriors, the laws and customs of their countrymen. Entrusted, for the most part, like the Grecian heroic minstrelsy, to oral recitation, and seldom committed to writing, it was not until the propitious reign of Charlemagne that—in this respect also sharing the fortune of the eldest surviving Greek poems—these verses were at last collected, and, as he hoped, secured from further hazard. But, alas! not a fragment of his collection has survived the active persecution of his bigoted successor, or the slower ravages of time. The loss thus occasioned can hardly be too much lamented; since, though some original relics of the eighth century perhaps exist, we may be sure that the researches of Charlemagne and his learned assistants remounted to a far higher date, and accumulated a mass of valuable specimens. That, even at a very high date, the Teutonic poetry displayed considerable excellence of structure and expression, may be inferred from the formed and regular prose of Ulphilas, whose Gothic translation of the scriptures still evinces the state of the tongue in the three hundred and eightieth year after Christ. But of the general tone and tenor of that poetry we derive indications from other interesting documents. The NIBELUNGEN-LIED (*Lay of the Nibelungen*), and HELDEN BUCH (*Book of heroes*), especially the former, may be marked as the Homeric poems of Germany. The *Lay of the Nibelungen* is an epic of the most rich, bold, and natural character. Though recast, probably by Henry of Ofterdingen, about the close of the twelfth century, and transmitted to us in the altered form which he imposed upon it, yet through all interpolations and changes of diction, the original substance can be clearly discerned. The scene, laid partly on

* A. D. 476.

† Tacitus, Lucan, Ammianus Marcellinus.

the Rhine, partly on the borders of Austria and Hungary, belongs to the age of Attila; * and the portraiture of those stormy days is drawn with too much truth and knowledge to allow of our fixing the date of the real author much lower than the next generation. It is a tale of impassioned love, of war and revelry, of joy and woe, of glory and fate, remarkable at once for the variety of its colouring and for the unity of its plan. If inferior in the development of its action, and the vividness of its representation, to the works of Homer, of what other epic production, of any country or era, must not the same be affirmed?

The *Book of heroes* seems to have been refashioned by the hands of the same Henry of Ofterdingen, already mentioned, and by those of his eminent contemporary, Wolfram of Eschenbach. Although made up of an assemblage, in four parts, of different knightly legends, the burden of the old national songs, it yet possesses a central point in the person of the principal hero, Dietrich of Bern, another name for the great Theodoric. The whole abounds in strokes of the imaginative and the wonderful, and speaks loudly for the vivacious and exhaustless fancy of the ancient bards. After exploring these monuments of their ability, it is impossible to be surprised at the honour in which they were held, or the rapture with which their hearers were affected. The sparkling eyes, the irrepressible tears, which are represented as attending their performances,† show not more plainly the sensibility of the audience than the magic of the strain.

Equally distinguished, and equally worthy of distinction, were the Scalds of Scandinavia. The lives of these famous poets were as full of incident as their poetry. Ever in the train of princes and gallant adventurers, in war or peace, by sea and land, they chanted their rhymeless verse for the solace and encouragement of heroes. With the exception of a few hymns to the gods, their oldest songs or *Sagas* seem to have been all of an historical import. Such were the themes prescribed to them at those festive entertainments, in which the pleasures of the banqueting tribe were accounted incomplete without some poetical tribute to their own exploits, or to the fame of their ancestors. In the Icelandic Edda, however, the richest monument of this species of composition, the theological element of their poetry, shadowed out in the most picturesque and graciful legends, is predominant. In the latter parts of that singular work, there are some traces of an acquaintance with classical mythology, and with the Christian doctrines: but in the earlier portion of it we find the unmixed spirit of the Teutonic creed; a spirit naturally fostered by the muse of Scandinavia, since in that region heathenism longest lingered, and most reluctantly gave way to Christianity. The conversion of its inhabitants was not fully achieved until the tenth century: the Edda appears to have received its present shape between the ninth, when the Norwegians, disgusted with the tyranny of Harold Fairhair, first established themselves in Iceland, and the thirteenth, during which Icelandic freedom expired. But in this instance, as in that of the poems before noticed, the substance of very ancient lays has evidently been preserved under some external alterations.

Such was the poetical state; that is, such, in one of the highest modes by which intellect reveals itself, was the intellectual state of Europe; down to the age of Charlemagne. While in the once famous seats of arts and arms scarcely a ray of native genius or courage was visible, the light of the human mind still burned in lands, whose barbarism had furnished matter for many a sarcastic stroke of classical pens.

The character of Charlemagne,‡ with whatever vices it might be stained, had two rare and excellent qualities: in spite of a youth and manhood spent in warfare, plans for the encouragement of letters divided his mind with those of conquest and dominion; and his reverence for exact and recondite learning did not degenerate into a pedantic hatred of all that was indigenous and popular. While he established schools, filled his court with men of erudition, and promoted the cultivation of science, he did not shut his eyes to the true though homely lustre of Teutonic genius. He gathered, as has been previously stated, partly from extant manuscripts, and partly from oral recitation, the songs of the primitive bards; and bestowed great pains upon the improvement of his vernacular dialect. The consequences of this patriotic and enlightened patronage extended, in the face of opposition, into succeeding reigns, and kept up the genuine literature of the middle ages. One portion, indeed, of the old poetry, the strictly mythological portion, had fallen, centuries before, together with the Runic characters and the superstitious rites in which they were employed, beneath the spread of Christianity; but the half-historical, heroic verse retained its charm and its popularity even after the epoch of Charlemagne. The people still delighted in tales of

* A. D. 450.

† See, in the historical remains of Priscus, his account of Attila's reception of the Roman ambassadors.—*Part I. p. 205. Bohn's edition of the Byzantine Writers.*

‡ A. D. 740—814.

wood and wild, of blood and battle, of love and wassailing. These neither the rivalry of the monks, nor the ban of the church, were able to suppress in favour of moral rhapsodies and versions of Scripture. The gospel-translations of Ottfried * were not, we may believe, so often on contemporary lips as the grand triumphal hymn, pregnant with lyric fire, that commemorates the overthrow of the Normans by Louis the Third.†

A foreign writer, with praiseworthy liberality, has pronounced the merits of Charlemagne, great as they were, inferior to those of Alfred.‡ That illustrious prince was himself a scholar of no mean attainments, and an author, whose labours improved and enriched the Anglo-Saxon dialect; one of the finest and purest forms of Teutonic speech. His animating example and fostering cares had the most beneficial influence on his contemporaries; and but for the subsequent troubles of England, and the incessant terrors of Danish invasion, might have caused so ample a development of mental powers as would have created an early and complete English literature. Even amid the agitating events of those turbulent times which followed his death, the voice of song at least was not silenced. How much of epic inspiration, as well as of national pride, still lives in the Saxon poem on the victory of Athelstan!§ By appealing to further evidence, and especially by turning once more to the materials furnished by the state of Iceland, and the rest of the Scandinavian territories, it would be easy to make out a pleasing picture of the genius of the middle ages at their close; but the appearance of new languages, and the fresh dawn of intellect in other parts of Europe, now invite our attention to a wider and more fruitful field of observation.

We have already alluded to the confusion and debasement of language, produced by the torrent of immigration from the North, in those Southern countries over which it passed. Where the medium of thought was so corrupted, and while the virulence of the corruption endured, there could be no vernacular literature. But, force and activity of mind having been original attributes of the conquering race, and recollections of pristine glory still lingering among the conquered, it was to be expected that regularity and harmony of speech would ultimately reappear even out of the concussion of discordant elements. And thus, in the course of centuries, order in new and various shapes arose from previous confusion; the Latin and Teutonic tongues were blended together upon a principle of compromise; and hence proceeded all the chief dialects of Modern Europe. Over the South, from Portugal to Italy, the Latin element prevailed: but even where Teutonic was the basis and main ingredient; in the English, in the yet purer and more primitive German; there has been so considerable an infusion of Roman words, that these also might fairly be classed with the Romanic languages. Among those, however, to which that name is generally given; the Provençal, the French, the Italian, the Spanish, and the Portuguese; the traces of a common origin, notwithstanding some curious diversities in the formation of vocables from the Latin stock, are much more deeply and indelibly marked. To these five, so closely related; and to the other two, which may be viewed apart from them; all that is prominent and precious in modern letters belongs. The birth of some of these languages; of the Provençal, which having been formed at Arles during the reign of king Bozon,‖ preceded the rest in antiquity; and of the French, which took its rise in the court of William Long-sword,¶ son of the Norman duke Rollo; falls within the limits of the middle age: but it is not until the eleventh century that their progress becomes identified with the history of literature.

With the earliest years of this century causes began to unfold themselves, which altered the relations of society in Europe, and, as a necessary consequence, the tone of her literary productions. Hitherto circumstances had almost forbidden the development of more than the poetical faculty in certain popular forms. There had been no elegant repose; no widely-diffused freedom; no peaceful enjoyment of property: the independence and industry of the middle classes, which have since generated so much mental power, were things scarcely known: the chieftain, the vassal, and the slave, were the characters which stood out in highest relief, and determined the aspect of civil life.

At last, through that tendency, so remarkable in human affairs, of enormous evils to work their own cure, the social chaos resolved itself into some appearances of order and tranquillity. Throughout the whole of the eleventh century this process was in operation; and although Europe was then in a state of transition, whose results became more evident in the course of the next two hundred years, yet the very commencement of the great change is sufficiently marked to constitute a new era. It was then that the gradual abolition of personal slavery, hardly

* A. D. 870. † Author unknown. Date A. D. 881.
‡ Reigns. A. D 871—901. § A. D. 938.
‖ A. D. 877—887. ¶ A. D. 917—943.

complished in three successive centuries, began. third estate arose. The rights of cities, and a corporation-spirit, growing out of the cessity that drove men to combine for mutual fence, gave birth to a species of steady inter- urse among them, which led to immediate nprovements of language and idiom. Then also nivalry, strictly adhering to its original purpose, rved to mitigate the oppressions of the nobles, nd to soften and refine their manners. From he date of the first crusade* down to the close f the twelfth century was the golden age of hivalry. The principal thrones of Europe were ccupied by her foremost knights. The East formed a point of union for the ardent and adventurous natives of many different countries; whose courteous rivalry carried to a high pitch the profession of generous sentiments and the passion for brave deeds. The feeling of honour, which is the very soul of chivalry, was never more lively. And the crusades themselves, though intended by their original promoters to rivet the fetters of superstition and retard the progress of the human intellect, had to a great degree an opposite effect. By the passage of thousands of her sons through Greece into Asia and Egypt, amid the ancient seats of art and science and refinement, in which all traces of their former reign were not yet obliterated, the genius of Europe was roused. Men's minds received a fresh and powerful impulse. They were led to compare, to reflect, to aspire, and to imitate.

In order to trace clearly the progress of modern letters from the epoch which we have fixed, and to show at once their general scope and spirit at different times, and the height of excellence to which certain great minds attained, it will be proper now to distribute our subject according to three remarkable periods. The first will comprehend the course of the new literature from its dawn to the Reformation of religion; the second will extend from the Reformation to the end of the seventeenth century, or the reign of Queen Anne in England; and the third period, commencing with the reign of that princess, will carry us down to the present day.

I. Of the first of these periods, or of a large portion of it at least, very opposite impressions may be given, as prejudice and the love of theory, or fairness and the love of truth, are allowed to sway the mind of the critic. It will be painted in sad and sombre tints by those who choose, with Robertson,† confounding the limits of literature and science, to fasten their eyes upon the scholastic theology, or the metaphysics of the twelfth and thirteenth centuries, and to inveigh against the speculative refinements of the one, or the frivolous subtleties of the other. But it seems monstrous to confine attention to works of this sort, composed in degenerate Latin, while, at the same points of time, the natural and healthy produce of genius, excited by all the causes that have been above enumerated, and breathing the accents of vernacular dialects which had at last arisen, presents a prospect equally real, and infinitely more pleasing to contemplate.

As of these dialects the Provençal was the earliest formed, so in the age with which we are now concerned, the Provençal poetry took precedence of all other kinds of literature. It was the most rapidly developed, and the most widely diffused; spreading from the extremities of Spain to those of Italy, and serving for a model to the poets of other lands and tongues; even to those of the North. The language, in which it was composed, was spoken in all the provinces of France south of the Loire; a region that had been subject to several of the successors of Charlemagne, but had, in 879, gained the rank of an independent kingdom, and enjoyed its independence for more than two hundred years. At the close of that period, Provence was joined to a portion of Spain, under the sovereignty of Raymond Berenger,‡ count of Barcelona: but as the Catalonian dialect was closely allied to the Provençal, this junction, instead of distracting the minds of the united people, only impressed them with a fresh movement. The Catalonians had exercised their faculties in the pursuits of commerce and of war; they had enlarged their knowledge and polished their taste by familiar intercourse with the Moors of the peninsula. The Arabian poets, and writers of history, who were then to be found at every petty Spanish court, were brought by the reign of Berenger into contact with his French subjects. And thus from East and West at once, partly through means of the Crusaders, partly through means of the Moors, the fictions and modes of composition, belonging to Arabia and Persia, began to influence the progress of letters in Europe. Here, therefore, seems the proper place to say a few words concerning both these branches of literature.

Until the middle of the seventh century after Christ, the Arabian peninsula, cut off by its position from the rest of the world, and having

* A. D. 1095.

† See his View of the progress of Society in Europe, &c., Sect. I.

‡ A. D. 1092.

few commercial relations with other countries, could boast of little intellectual culture. During those times of their ignorance, as the Arabs themselves have named the ages before Mahomet, there was, however, among them that species and degree of original power which irrepressibly breaks forth in song. And artless as their poetry was; made up of successive pictures in the order in which they might strike the imagination, with no heed of system or regular arrangement; still those rude rhymes were so highly loved and valued by the people, that the great Impostor never felt sure of the triumph of his doctrines till the character of poet as well as prophet was conceded to him by contemporary criticism. About one hundred years before his appearance means had been adopted to invest with more than their primitive pomp and circumstance the strains, which from an immemorial date had formed the delight of his countrymen. Full of martial fire, they had long thrilled the bosoms of the desert tribes; rich in amorous sentiment, which is not, like the former feeling, an uniform ingredient of early and unpolished poetry, they had long been dear to the natives of a burning climate; long had they amused and recreated the weary pilgrims who thronged to the holy city of Mecca; but the appointment of a set place for the competitions of the bards, and the custom of suspending the successful poems on the doors of the Caaba, cannot be traced further back than the beginning of the sixth century. The oldest productions of this class which have reached us have no claim to a higher antiquity.

Yet what an untainted freshness, what an union of strength and pastoral simplicity, such as we expect to be breathed from the soul of a warrior-shepherd, do these specimens of Eastern poetry exhibit! True, there is great sameness in their introductory parts, in the passages descriptive of scenery, and in the allusions to a circle of objects and ideas, which circumstances made unavoidably narrow. But, with thus much of confessed uniformity, how striking a variety is there in the characters of the different poets; from the mellowed wisdom of Zoheir,* from the fine struggle between passion and heroism in the bosom of Antara, to the tenderness of Lebid, or the ready guile that aids, without allaying, the impetuosity of Amriolkais! Their compositions may not belong to any regular division of the art, (unless the limits of lyric poetry be deemed wide enough to admit them), but who will deny the praise of beauty to that exquisite, however irregular, mixture of martial audacity, with elegiac sadness, and the richest glow of voluptuous colouring? The Moallakat, as the seven extant pieces, made known to English readers by the versions of Sir William Jones, are named; and some of the more ancient verses in the Hamasas,† or anthologies; force us to entertain no humble estimate of the powers of the Arabian lyre, before the epoch of the Prophet.

Then came the Koran:‡ so far poetical in form, that the principle of rhyme is discernible in its several chapters; so far poetry in substance, that some passages of genuine sublimity appear amid much flatness and poverty of conception; and so far important in the history of Arabian letters, that when the scattered leaves were collected by Abubeker, the successor of Mahomet, and afterwards revised by the caliph Othman, in the thirtieth year of the Hegira, they fixed at once the classic language of the Arabs, and became their standard in style as well as in religion. But though the work in itself possesses a certain degree of literary merit, the first effect of the new faith which it inculcated was to consume the love of art and science in a flame of fanatical enthusiasm. For one hundred and thirty years after the Hegira, the Arabs were intently occupied about schemes and feats of conquest; the fruits of which were a dominion stretching from the borders of Tartary and India to the coasts of the Atlantic. Little room was there for the love or the encouragement of letters amid the press of warlike plans and operations. At last, however, the Abassides were established in the caliphate,§ and brought in their train the revival of learning and philosophy. Especially from the reign of Al-Mamoun ‖ we must date the true glory of Bagdad. His court was more like some brilliant academy than the centre of a military empire. Then was the great day of translators, commentators, doctors, and professors. The zeal that adorned the throne spread through its dependencies; pervading and enlightening Egypt and Morocco, until it reached the very acme of its beneficent influence in Spain, where Cordova, Seville, and Granada contested the palm of merit. Then, too, though both the exact and the metaphysical sciences were studiously cultivated, poetry and rhetoric were not thrown into the shade. On the refinement of language, and on every other aid and appliance of these fascinating arts, the most unsparing pains were

* Zoheir about A. D. 531. Antara a little before that date. Lebid and Amriolkais contemporary with the earlier years of Mahomet.

† The dates of these collections, two in number, are A. D. 830. and A. D. 880, but several of the poems contained in them are older than the time of Mahomet.

‡ Mahomet A. D. 570—632. The Koran published by Abubeker, A. D. 634, revised by Othman, A. D. 652.

§ A. D. 750. ‖ A. D. 813—833.

bestowed. An almost incalculable host of names might be cited to attest the richness of the Arabian literature, and above all of the Spanish branch of it. As late as the fourteenth century it had not totally died away, but in the eleventh, the period most nearly connected with our present inquiry, its beauty and vigour were at the greatest height.

Though erring on the side of extravagance and subtlety, even the cultivated poetry of the Arabians is of a highly original vein. While they were taking lessons in science from the Grecian philosophy, the Greek poets as well as the Greek historians remained unknown or unprized by them. The praise of equal originality is, perhaps, not due to another department of their imaginative works; those picturesque and brilliant tales, allied to poetry in some of its most winning attributes, one body of which, although accessible to the majority of European readers only in translation, still occupies a commanding place in literature. Yet, admitting that orientalists may have rightly derived much of this delightful collection from Persian or Indian sources, there can be no doubt that the Arabs were the great patrons and promoters of the branch of fiction to which it belongs. As soon as we hear at all of the natives of Arabia, we hear of the enthusiasm with which they were wont to practise or applaud the art of narration. From them that spirit was caught by the Crusaders, which infused itself, together with the spirit of Arabian poetry, into the compositions of the West, in the very dawn of modern letters, ages before an exact version of the principal legends had been published in Europe.

The genius of PERSIA, likewise, was brought by a direct, as well as by a circuitous channel, into contact with the European mind. In that country, during the times of the Magi, there had flourished an ancient literature, some fragments of which survived their fall. The Magi themselves, with their rites and laws, were swept away by the Mahometan conquest,* when political considerations led to the suppression of their order: but, after a tedious interval, the creation of a new Persian dialect brought with it the reappearance of polite learning. In history, and still more eminently in poetry, successful efforts were made. So late as in the thirteenth century, the *Orchard* and the *Rose-garden* of SADI combined the mingled flowers of narrative, gnomic, and ethical song; so late as in the beginning of the fifteenth, sublime mysteries were couched by the lyric HAFIS under the allegorical praises of love and wine. Here, however, as in the history of Arabian letters, the epoch of perfection nearly coincides with the dawn of the Provençal minstrelsy. At that era FERDUSI † poured forth a hundred and twenty thousand verses to the fame of his country's heroes, and deserved by their excellence to be styled the Persian Homer.

To look back on what we know or guess as to the old literature of Persia would serve the single purpose of demonstrating that its origin and growth were similar to those of Grecian poetry, as already described. But Ferdusi has a thousand claims on our attention. His bold epic diction; the beautiful fancy with which he idealized traditionary tales of kings and warriors; have been felt in their vivifying influence upon many European productions: and, if some corresponding notions, and some kindred superstitions already existed in the West, they took at least a warmer colouring from the splendours of his oriental imagery.

Among the embellishments borrowed by PROVENÇAL poetry from the Arabs was rhyme, an ornament as essential to Arabian verse as alliteration was to that of the Northern tribes; and which its adopters strove to vary with the most sportive prodigality. From the same source, likewise, were derived many glowing maxims of chivalry, that great virtue of the gallant Moors; and many aspirations of romantic love. For in the *troubadours*, as in their Eastern masters, the traits of the amorous and of the martial character were blended. If strokes of satire and political allusions were allowed to mingle with some of their kinds of composition, still in all those kinds, their single lays and their amœbaean dialogues, their *sirventes* and their *tensons*, or whatever else they might be called, war and love were evermore the key-notes of the strain. By the appellation of *Courts of Love* were those assemblies known, in which the ardour of contending poets was inflamed by the presence of beauty and the hope of prizes from a female hand. Even this incitement, however, failed to call forth any production of surpassing merit. None rises high above the level of the multitudes around. It would be needless to number the piles of manuscripts, in which these are chiefly preserved; or to recount a long list of individual troubadours, though it would include a name so illustrious as that of the lion-hearted Richard, the hero of his age, and the idol of his poetical contemporaries. Suffice it to say that the Provençal style endured, in different quarters, from the time of William of Poitiers ‡

* A. D. 651.

† Died, A. D. 1020.

‡ A. D. 1071—1126.

to the union of Aragon and Castile,* without greatly adding to the vigour and tenderness displayed in its earliest specimens. The rage, perhaps, for joining the ranks of the troubadours, was too universal to favour the real progress of their art. Fashion rather than inspiration led too many to enroll themselves. Men rhymed because they heard the rhymes of others: they rhymed as a knightly accomplishment: and the best among them, when their natural vein was exhausted, were still compelled by rivalry to rhyme on. Moreover, the principal seat of this art, the southern portion of France, was torn to pieces, in the opening of the thirteenth century, by the Albigensian persecution.† At last Provence itself fell into the possession of the French crown. The northern dialect, technically distinguished as the language of *oui*,‡ drove the dialect of the south, or the language of *oc*, from its position on the field of literature.

The dialect of NORTHERN FRANCE had indeed, though sprung from the same sources as the Provençal, and distinguished from it only by a greater predominance of the Teutonic element, always resisted the sister language, and rejected, with intolerant disdain, those ameliorations which might have been derived from its more early and rapid culture. Till the middle of the twelfth century, the Walloons, or French of the north, made use of Latin alone in all works of taste or fancy. The Normans, however, as one result of their successful invasion,§ communicated somewhat of their own nerve and liveliness to the vernacular tongue of their new subjects: and in Normandy, or by natives of that province, the first well-known writings in the Walloon dialect were produced. The most remarkable of these was BRUT OF ENGLAND, a rhymed fable from ancient legends, which appeared in 1155. Then, under the reign of Philip Augustus,‖ a cluster of poets, from the Norman town of Bernay, and other places, charmed the Parisian court with the adventures of Alexander, the great Macedonian, metamorphosed into a cavalier. Royal and noble patronage soon summoned into existence a swarm of versifiers, who gradually ripened and improved the French language; though its progress was not swift until the full restoration of classical learning in Europe. Lyric poetry claimed a share of their attention; so that in their art, as well as in their [illegible] of the north were allied to the [illegible] dours. But the epic tendency [illegible] Mere songs and verses of gallan[illegible] so popular with those, whom [illegible] sought to please, as stories of [illegible] merry tales, especially when [illegible] chosen stock of romance, or recit[illegible] of the fairies.

This appetite for fables of [illegible] further inflamed by the intro[illegible] oriental taste. The very legends [illegible] were broken into rhyme; though t[illegible] never able to impart to them t[illegible] naïveté and interest which some o[illegible] ings attained. No wonder that Fre[illegible] engaged in this kind of composit[illegible] original form to one species of r[illegible] the cradle of the *romances of chiv*[illegible] first appeared in a poetical dress; [illegible] primary estate at least, were no[illegible] poetical essence. Bechada[illegible] to them, when in the year 1[illegible] exploits of Godfrey and the [illegible] earliest crusade. But king Arthur, Pendragon, the rudiments of wh[illegible] found in the above-mentioned poem [illegible] magician Merlin; and the knights of [illegible] Table; supplied the subjects of the [illegible] regular romances. The court of C[illegible] and his paladins, whose real history [illegible] liant, amid the darkness of the middl[illegible] it readily afforded a nucleus for a host [illegible] additions, gave birth to another clas[illegible] famous chronicle of *Turpin*, the pa[illegible] second family, had been translated [illegible] Latin in which it was composed. Th[illegible] popularity of the former of these cl[illegible] the chosen scenes of its adventures, ind[illegible] plainly that though romantic lays were [illegible] enough in other provinces, and superna[illegible] chinery might be borrowed from many [illegible] was the Normans, who so powerfully influ[illegible] early French literature, that were the [illegible] creators of this new world of regular po[illegible] it matters little, for the fame of that n[illegible] whether their first attempts were made in [illegible] or in France. And, though much grossn[illegible] absurdity disfigure the best of their pro[illegible] though there is no great variety, except o[illegible] in the long chain of romantic fictions [illegible] not only do the fairies of the East ming[illegible] wild dance of incidents, but the most [illegible] distortions of Greek and Trojan story s[illegible] classical reader of them; still in their [illegible] there breathes the true Norman spirit; st[illegible] ing knighthood and devoted gallantry [illegible]

* A. D. 1479. † A. D. 1209.

‡ From the form of the affirmative, equivalent to "yes," in that dialect. On the same principle, the Provençal was called the language of *oc*; the Italian that of *si*; the German that of *ja*.

§ Rollo recognised as duke of Normandy, A. D. 911.

‖ A. D. 1180–1223.

two poles, on which their whole system is made to turn.

From the date of *Tristan*, in 1190, the first that was written in prose, a large portion of these works was withdrawn from the domain of verse. But the poetical form was again adopted for a celebrated composition, allied to them in name rather than in substance, which bespeaks the originality of French genius, and has been the model of some illustrious imitators. William of Lorris, who died in 1260, began the ROMANCE OF THE ROSE: John of Meun, about fifty years later, completed it. This allegorical dream on the art of love, distinguished from the Visions found in some classic authors by the nature of its plot, and from the chivalry-romances by its shape and double meaning, was received with acclamations of surprise and pleasure. The fact that it was so greeted has been often advanced as a proof of the extreme bad taste of the times; yet it cannot be denied that amid all the extravagance, indelicacy, and tediousness of its twenty thousand lines, there are both great powers of luxuriant description, and traces of that wit, that invention, and that practical philosophy, which, in combination with the talent of narrating, very early delighted the French people, and constitute the very soul of their literature.

In another great branch of poetry, the Normans set the example to modern Europe. In their hands, either on French or English ground, the art of narration once more warmed into the DRAMA. Before the close of the thirteenth century, tales in dialogue, grounded upon sacred subjects, were produced by pilgrims returning from the Holy Land. In 1313, Philip the Fair of France gave an entertainment, at which dramatised facts and parables of Scripture were mixed with satirical farces. In 1380, regular companies were organised to conduct both these species of exhibition. It is curious to perceive, in some of these steps, a near resemblance to the rise of ancient tragedy and comedy. The character of those histories, which furnished its plots, rather than anything in the process of its growth, gave a new character to the romantic drama, when compared with that of the classical ages.

Meanwhile composition in prose, though the faults that marred a vast proportion of their metrical works, were even exceeded by its imperfections, was not abandoned by the French. About the year 1309 JOINVILLE, by his biography of St Louis, became the founder of a historical school, in which the France of later days has numbered many of her most eminent wits. Though deserving praise for his fulness and fidelity, his style is unformed, verbose, and intricate: but, almost a century later, the enthusiastic FROISSART,* conceiving his plan in youth, and devoting his life to its execution, crowned the other merits of his captivating chronicles with a fluency and a power of painting that reveal, in spite of frequent carelessness, the hand of a master.

During the hundred years that lie between Froissart and the end of our first modern period, French literature was not entirely stagnant. We may mark the venomous satires of CORBEUIL,† and the agreeable memoirs of PHILIP DE COMINES.‡ But mighty causes were now coming into operation, the heralds of a new era, and whose effects on the progress of French letters will hereafter, in their turn, be pointed out. At present we must go back to take up the literary annals of other countries.

With the literature of northern France that of ITALY has certain links of consanguinity. The *romance of the rose*, immeasurably inferior as it is, gave the hint for the transcendent vision of Dante. Boccacio drew upon the *fabliaux* of the trouvères for a considerable part of his materials. Ariosto, and other authors of the chivalrous epics, echoed while they improved the tone of the chivalrous romances. But the first literary connexion of the two nations arose, more naturally, between the Italians, and the poets of Provence.

Towards the conclusion of the middle age, and while the Romanic language in Italy was still raw and fashionless, some legendary tales appear to have been attempted in that dialect; but it had, as yet, no fitness for regular composition. Subsequently, the constant intercourse of the Italians with the south of France made them aware of the graces of the Provençal tongue, and masters of its use. Thus put in possession of an already formed medium of thought, they strove to emulate the Provençal poetry. The troubadours welcomed and encouraged the ardour of their disciples. For two centuries,§ the style which they had created, continued popular in its new territory; and the reputation of the Mantuan SORDELLO;‖ of him whom Dante honoured, and in whom he figures Virgil as proud to own a fellow-citizen and successor; illustrates the brightest point of that period.

By degrees the proper Italian, both in Sicily, where songs were written in it on the Arabian and Provençal model, and in Italy itself, was gaining form and flexibility. By the very fermentations of its political state, by the increase

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* Died A. D. 1400. † A. D. 1431—1461.
‡ A. D. 1446—1509. § From A. D. 1100—1300. ‖ A. D. 1200.

of trade and manufactures, by the growing prosperity which these engendered, the Italian people began to feel its own strength and to seek a vent for it in fresh directions. The voice of a few poets was heard in the accents of their country: even prose was here and there essayed. It seemed possible that the scattered powers and harmonies of the language might be condensed, in process of time, into true force and rhythm; when at once, a single individual, borne up by the consciousness of irresistible genius,

"At one slight bound high over-leap'd all bound,"

and raised his native tongue to an eminence unapproached by any contemporary form of speech. Dante * produced the first great work of modern literature; and instantly made classical the mingled nerve and melody of the Tuscan dialect.

A portion of the multifarious studies, whose fruits are manifested in the various and astonishing knowledge of this mighty poet, was prosecuted at Paris; and there he became acquainted with the sort of mould, in which the allegorizing spirit of his age might be embodied. But the hints as to externals, there or elsewhere acquired by him; the tone of elevation and true art, with which his knowledge of the Latin ancients endowed him; the deep tinge of scriptural sentiment that imbued his soul, breaking out in more than the typical features of his poem; all these things, allowing them their utmost influence, still leave him perfectly original. The *Divine Comedy* is worthy of that strange and compound title, derived from the author's modesty on the one hand and the admiration of his countrymen on the other; since, though not dramatic, in the common sense of the word, it is equally foreign to the rest of the regular divisions of poesy, and defies us to class as well as to imitate it. It is not a mere vision: it is not a mere allegory. The actual, the visionary, and the symbolical, are blent into an unparalleled alliance. Who, indeed, shall endeavour to define and class an hundred cantos of Hell, Purgatory, and Paradise, that give shape and local habitation to the unseen, and soar above every other monument of human ingenuity in the horrors and the splendours they unfold? Who shall reduce to one category that amazing mixture of high and low, of tragical and ludicrous, of touching and terrific, of the love lighted up in the breast of Dante by his immortalized Beatrix, and the madness that was all his own? What a sensation must have been caused, in those days, by his learning; by his religious feeling, meriting to be so termed, when it is obliquely revealed, though too apt, in its more direct assertion, to run into fierce fanaticism; by his audacious satire; by his stern partisanship, wielding infernal fires for the punishment of political enemies; by the lurid grandeur of a style, whose light and darkness were equally exciting! The fourteenth century, at the opening of which the Divine Comedy was written, had not ended before academical lectures were instituted for its elucidation; and Boccacio himself did not disdain to be so employed. Hence, though Dante had no genuine followers in poetry; though he did not remain at all times the especial favourite of the Italians; the impression he made upon their language has been profound and lasting.

Dante burst upon the world with the suddenness and the pomp of a volcano. In the bosom of Petrarch † burned a gentler flame. He caught and continued, in his own tongue, the spirit of the love-poets of Provence; but with a far higher genius, which has cast an undying halo round the memory of Laura and the fountain of Vaucluse. He has all the tenderness of the troubadours, dashed indeed with much of their affectation, yet more intellectually conceived and uttered with more skill in composition. To the Italian language, even after the muse of Dante, he was a signal benefactor. His soft and delicious harmonies gave it a more pure and consistent polish; the polish of Cicero and Virgil, chosen objects of his worship; the polish of those classical ancients, whom he first actively awakened from the sleep of ages, with an enthusiasm for every thing beautiful and noble in antiquity, which he laboured to diffuse over Europe, and whose effects were speedily felt in his native land. How must that enthusiasm have filled and controlled the mind of Petrarch, when it caused him to blush for his Italian poetry, and to rest his pretensions to renown upon a Latin epic! But, though the university of Paris and the senate of Rome crowned him for his *Africa*, it is the vernacular verse, which he despised, that has won him a crown from posterity. The one is known only for the sake of Petrarch: Petrarch himself is known and honoured for the other.

We cannot marvel that the greatness of two such poets as Dante and Petrarch overshadowed the souls of men, and oppressed the vigour of Italian song for more than one generation. Dante was too lofty to be the founder of a school. Not less few than vain were the attempts to follow him. Petrarch, though even those who, with the candid and elegant Sismondi,‡ most severely

* A. D. 1265—1321.

† A. D. 1304—1374.

‡ De la littérature du Midi de l'Europe.

condemn his conceits and his cold abstractions, will confess that the perfections of his style are as hard to equal as Dante's sublimity, seemed to present an easier standard. Hence it became the universal rage to imitate the lover of Laura. His sonnets fixed a new shape of lyric poetry: fatally, perhaps, for the lyric genius of his country. Originality shrunk away from the constrained thoughts and vapid iterations of the sonnetteers. For a season, too, it was kept down by a resuscitated zeal for the classical writers. Much intellectual power was wasted on imitative endeavours in Latin composition.

In the age of Petrarch, Italian prose began almost to rival the graces of his poetry. A few previous efforts had been made; a few tales had been translated from the French trouvères. Boccacio * applied his shining talents to the same task, and in the *Decameron* furnished an example of purity and harmony, of a choice and richness of expression, which showed that the language he cultivated was now fit for the treatment of any topic; and which, among other consequences, threw into the shade his own poems, though fraught with the epic vein, and memorable for the invention of a stanza, that was afterwards adopted in all the heroic verse of Italy, Portugal, and Spain. The criticism of later times detects faults, besides those which regard morality, in this celebrated work; some prolixity of narration, and some careless verbosity; but its general liveliness and elegance are worthy of the friend of Petrarch.

Among the imitators of Boccacio, Sacchetti, who grounded his novels upon real events, and who brings us down to the year 1400, comes nearest to the Tuscan beauties of his model. We can do no more than glance at some productions of a more serious kind. The political condition of Italy, when it had once been broken up into a number of separate states, gave all classes an interest in public affairs; bestowed the spirit of statesmen on her antiquaries and her men of learning; and made history an object of high concern. So early as the year 1268 Spinelli composed annals of Naples in the Neapolitan dialect. Similar works appeared in various places. Even Petrarch deigned to employ Italian prose in a brief account of popes and emperors. Unfortunately, in spite of this beginning, historical writers soon betook themselves to the use of Latin, and maintained it until the commencement of the sixteenth century. The revival of classic literature in Italy, which has been already noticed, preceded its resurrection in other countries. Her opulence and liberality attracted the teachers of ancient letters: the munificence of her great men, her Viscontis, her Sforzas, and those princely merchants of the Medicean family, who discovered how alone wealth could minister to real glory, nursed the flame which these teachers kindled. Manifold and precious were the ultimate results of this sacred zeal; but its immediate effect, no doubt, was to retard the progress of modern Italian literature. As soon, however, as the right application of classical knowledge, so inestimable when properly directed, was clearly discerned, the enlightened taste of Italy returned, with fresh appetite, to the culture of its own tongue. The fame of Æneas Sylvius † and other masters of good latinity is merged in that of Lorenzo de Medici,‡ the restorer of Italian song; of his favourite Politien,§ who struck, though with a desultory hand, bold notes of both heroic and dramatic poetry; of Pulci ‖ and the more eminent Boiardo,¶ who with all their deficiencies of genius or of style, led the way, in Italy, to that renewal of the old chivalric romance, which we shall presently find productive of memorable excellence in the great poets of our next period.

The kindred language of Spain was quickened into life sooner than that of Italy. From the termination of the ninth century, the active and incessant struggles of the Spanish Christians against the Moors, as well as a contact, which they could not avoid, with Arabian civilization, began to elicit sparks of intellectual energy. Little need be said of the poems in the Limosinic or Catalonian dialect; though to compose or to improve them was the occupation of kings themselves;** though they formed the cherished amusement of the Spanish nobles; and expired not until, in the reign of Ferdinand and Isabella,†† that haughty class was humbled, and the bustle of traffic and business drowned the accents of chivalry and love. For the Limosinic dialect, through the union of southern Spain and France under the house of Berenger, was merged in the Provençal; and its subsequent poetry constitutes a part of the Provençal literature. But, side by side with it, the pure old Castilian tongue was likewise rising into being. As victory inclined more and more to the Spanish arms, it rapidly grew into a vehicle adequate to express the pride and dignity of the prevailing people, and that enthusiasm for

* A. D. 1313—1375.

† Afterwards Pope Pius II. A. D. 1405—1464.
‡ A. D. 1448—1492.
§ A. D. 1454—1494.
‖ A. D. 1431—1487.
¶ A. D. 1430—1494.
** As Alphonso II. 1160; Peter II. of Aragon, 1213; Peter III. of Aragon, 1285; John I. 1390.
†† A. D. 1479.

liberty which was long their finest characteristic. The Castilian strains were of a higher mood than either the Provençal or the Limosinic songs. While they gave a voice to amorous ecstasies, their chief function was the rehearsal of heroic deeds. Above all other relics of those remote times, the chronicle of the Cid, however barbarous in point of style and metre, must delight the antiquarian as the oldest epic in a Romanic language, the philosopher as a vivid and various picture of human nature. It is, probably, not less ancient than the eleventh century; and it reveals all the soul of that chivalrous age. Without pretension, it is full of greatness; without disdaining a mixture of comic description, it teems with high sentiment and marvellous exploits. And, though some of its materials were perhaps Arabic; and much of its spirit is necessarily that both of Moors and Spaniards; it is nevertheless a true national image of the Castilian race. Profound was the impression made by this poem, and by its hero, upon the Spanish mind: still is heard among the household words of Spain the name of Don Rodrigo de Bivar.

Time rolled on: Alfonso the wise,* chemist, astronomer, and poet, while he wrote some canticles in the Gallician dialect, lavished his chief care on the amelioration of that of Castile, and even tried to tune it to a philosophic key: but the Cid was not forgotten. That portion of his story, which is commemorated in the ancient epic, together with his previous and subsequent adventures, proved the parents of a numerous family of romantic ballads, all glowing with heroic ardour. This fact should be noted in its bearing upon the critical question as to the composition of the *Iliad*;† and gladly do we draw, from a work so Homeric in its best qualities, any argument honourable to the memory of Homer. It may be merely by accident that the great poem of the Cid, as it has reached us, is confined, like the Iliad, to a brilliant segment of its hero's history; but it is of infinite moment to observe how much its being the exact reverse of a compilation out of shorter separate lays makes against the theory that the Iliad was so compiled.

The literature of Spain, throughout the thirteenth century, has nothing worth recording except its ballads. In prose, the symptoms of rusticity were not mitigated until the next age began. Alfonso the wise reaped no good fruits from his endeavours to promote historical composition. But the prince Juan Manuel, who died in 1362, exhibits some grace in the forty-nine novels, of which his *Count Lucanor* consists. Lopez de Ayala‡ translated Livy into Castilian; and essayed, without much success, to imitate him in his own chronicles. Fernando de Pulgar, eighty years afterwards, was first distinguished by a more ripe and manly method of writing Spanish history; but in the province of fiction, a contemporary of Juan Manuel, named Vasco Lobeira,§ produced a powerful sensation by four books of *Amadis de Gaul*. Whether or not the germ of this renowned romance, on which even Cervantes has mercy,‖ were borrowed from France, there is no doubt of the greedy acceptance it met with from all ranks of Spaniards, and its instantaneous effect upon their taste. The spirit of those French works, with which, whatever its precise origin, it must certainly be classed, spread on all sides. Even the verse-romances of Spain became more chivalrous, more inventive, more fanciful than ever.

Thus proceeded the course of Spanish literature, mainly directed in one channel, as being animated and controlled by a forcible unvarying national character, to the end of the fifteenth century. Its tone was that of chivalry, until chivalry itself was no more. The feeble and troubled reign of John II.,¶ during which the Castilian power seemed utterly sunk, was not without poetry. Honour, pride, and gallantry still burned in verse. These attributes combine even with the erudition of Lope de Mendoza and the pedantry of Juan de Mena.** But as another epoch drew near, new species of poetical composition began to predominate; the lyric, in which the warm passions of the Spanish heart were damped by a fondness for conceits; the allegorical, in which Dante was ineffectually imitated. Even the rudiments of the drama, religious, pastoral, and satiric, showed themselves, and were marked by sundry traits of original thought and talent. None of these branches yet rivalled the excellence of the romantic ballads: but in some the way was paved for future triumphs.

Germany shared in the general movement of the European mind at the dawn of the modern era. No country more warmly embraced the institution of knighthood; in none was the passion for crusading more vivacious. Thus the Germans were brought into an ennobling fellowship with other nations; their perception of the grand and the beautiful in art or nature was

* A. D. 1221—1284.

† See Part I. pp. viii. ix.

‡ A. D. 1332.—1407.

§ A. D. 1326.

‖ Don Quixote, Book I. c. 6.

¶ A. D. 1407—1454.

** Lope de Mendoza, A. D. 1398—1458: Juan de Mena, A. D. 1412—1456.

sharpened; their very climate, improved by the removal of forests and morasses and the introduction of new modes of cultivation, poured a mellowing sunshine into the souls of men; and their princes and chiefs, charmed with lessons they had learned abroad, promoted the acquisition of foreign graces in mental as well as physical culture. The example of the Provençal troubadours was not lost upon their north-eastern neighbours. Yet the Germans, while they took from them the mould of their love-poetry, did not cease to manifest, in its substance, proofs of that independence, for which the Teutonic muse had previously been famous. With regard to the outward garb of song, their metres were immediately matured to a degree of harmony that still pleases the ear; but, notwithstanding a certain enlargement of their vocabulary out of that of their masters, the first change wrought upon their language was little else than one of dialect. Hitherto, from the reign of Charlemagne, the Frankish form of the German tongue had been most cherished. The poetical panegyric on Hanno, Archbishop of Cologne; a curious medley, which carries us, in forty-nine strophes, from the creation down to the death of that prelate in 1075; is written in Frankish. But when a Swabian dynasty, the house of Hohenstaufen, mounted the Imperial throne, their native dialect, more soft and refined than the Frankish, took precedence of it in courts and literature. From 1138, the date of the accession of Conrad the third, to about the year 1346, was the age of the Swabian Minnesingers. Three hundred of that tuneful band are known to us. Emperors and kings, dukes and counts, knights and barons, were among the foremost to compete in song. Poetical tournaments were held in lists crowded with the best blood of Germany. They chanted the praises of wine: they gave vent to all the dreams and longings of untamed fancy: they told of the pains and joys, the sighs and smiles of love, with a truth and tenderness that fitly baptized them with the very name of the passion * so portrayed. Not that other themes were entirely overlooked by the Minnesingers. Fables and spiritual hymns, heroic and didactic poetry, were occasionally produced by them. Henry of Valdeck,† after the precedent of an old French work, wrote a half-version, half-paraphrase, of the Æneid; taking care to embellish Virgil with romantic episodes in a taste somewhat different from that of his original. The trouvères, in addition to the troubadours, became favourite models; and the Round Table, the Paladins, the Trojan war, and the deeds of Alexander the Great, made their appearance in German verse.

But the Minnesingers always shone most in their erotic poetry. Tender and thrilling to the last, it would hardly have died of mere exhaustion, from constantly dwelling on one fertile topic, had not political changes altered the aspect of Germany. The death of Frederick II., in 1250, was followed by twenty-three years of confusion, and by a melancholy depravation of the character of the German nobles. No more crusades, no more chivalry, no more delight in minstrelsy, dignified their order. Feudal violence prevailed on every side: all intercourse with foreign poets was abandoned: the knight sank into the military robber: Swabia, once the seat of taste and happiness, fell into decay. And, though Rudolph of Habsburg ‡ repressed violence with a strenuous arm, neither this able monarch, nor his immediate successors, had leisure to patronise the peaceful arts. The promulgation of the Golden Bull, in 1356, bestowed on Germany a settled constitution; but by that time the inclination to romance had vanished; and, since the gentle contests of poetry were prised no more, and sterner realities or other pleasures had driven the art away from palaces and castles, it is rather surprising that, amid so many discouragements, a few Minnesingers should have lingered on so long, than that their career should then have closed for ever.

The Meistersangers were their degenerate successors. Never so faintly, as when struck by them, sounded the harp of Germany. They sang to it, moreover, in a tongue that was now grievously corrupted. Even the love-poets had incorporated with the German language a gradually-increasing number of Provençal, French, and Latin words. After their decline, both the adoption of foreign phraseology became more habitual, and the rising demands of the philosopher, the lawyer, and the mystic, for a fresh coinage of terms, while they held out the prospect of a rich and teeming future for the German tongue, gave birth in the mean while to an uncouth jargon, ill adapted for either poetry or prose. The first of these, falling entirely into plebeian hands, and putting on a trade-like exterior, became in very truth a craft and not an inspiration. The Meistersangers congregated in towns, such as Mayence, Nuremberg, and Strasburg: they had their corporate statutes, meetings, ceremonies, and privileges; their thirty-two prohibitory articles; their choice of scriptural,

* *Minne* signifies *love* in German.

† A. D. 1170—1207.

‡ A. D. 1272.

satirical, pastoral, romantic, amatory, and even dramatic subjects. Rosenplut,* an heraldic painter, the Thespis of the German stage, belonged to their society; but its most renowned member, at a later period, was JOHN SACHS,† a shoemaker, the author of upwards of six thousand pieces; whose tediousness and insipidity, in spite of Schlegel's extravagant praise of them, serve only to verify an ancient proverb.

The erection of universities, at Heidelberg, Prague, Vienna, Erfurt, Würzburg, Leipsic, in rapid succession,‡ did nothing to ameliorate the German taste. Their energies were expended upon empty whims, unmeaning words, and frivolous distinctions. If some tokens of a better spirit were discernible, it was in but a single department of letters, and through means of one or two individuals, who soared above the general standard. Hugh of Trymberg, about the year 1300, and Boner, nearly fifty years after him, by their moral satires and their fables, prepared the way for REYNARD THE FOX,§ a specimen of the comic epos, which proved at last that wit, humour, shrewdness, and invention, were not extinct in Germany. Whether Henry of Alkmar, or Nicolaus Baumann were the writer of this popular poem; and whether the first outline of its plan belong to the Dutch or to the Germans; there is no question as to the skill and boldness with which the author, in the Friseland dialect, and in rhymes succinct and unconstrained, converts the kingdom of beasts, who speak and act like men, into an allegorical satire upon the vices of the high and low, the wiles of courtiers, the excesses of the clergy, and the whole "form and pressure" of his times. Allegory, though managed with less ease, and through the personification of abstract qualities, reigns likewise in the *Theuerdank* of Melchior Pfinzing;‖ but the hero and patron of that poet, MAXIMILIAN I.,¶ who was himself an author, and who once more exhibited the spectacle of learning and zeal for its advancement in union with imperial rank, deserves better than his eulogist, to be named as standing on the border between two epochs.

German prose, which has always lagged in the rear of German poetry, was naturally more tardy in its first growth. Frederick II., and subsequently Rudolph of Habsburg, gave it as much sanction as could be derived from its use in public documents. The thirteenth and fourteenth centuries witnessed some feeble attempts in history: Tauler, a Dominican of Strasburg, who died there in 1361, preached sermons not destitute of eloquence: but ALBERT DÜRER,** so distinguished in the practice of art, was also, by his writings on its theory, the real founder of prose composition in his country. And the mention of this eminent person again conducts us to the age and the court of Maximilian.

The three divisions of the BRITISH ISLES; England, whose language, drawing without scruple from the resources of other tongues, and transcending all of modern date in force and variety, has established itself as supreme throughout a great empire; Scotland, which though labouring under many disadvantages, and never able to compete with its more fortunate *sister* in some branches of learning, has yet matched her proudest names in intellectual strength and enterprise; Ireland, renowned during the middle age for scholastic eminence, and amid the miseries and distractions of her more recent annals, shining at intervals with genius of so bright a ray, that it needed not the contrast of surrounding darkness to augment its brilliancy; these are the regions that furnish a candid inquirer the most valid reasons for doubting whether the lustre of ancient Greece itself has not been equalled in later times. In ENGLAND, it is true, the early promise of the Saxon literature was blighted. Following in the train of other adverse circumstances, the Norman conquest was sufficient to keep down, for upwards of two hundred years, the most genial element of our tongue. From William's invasion to the death of Edward I.,†† Norman French was the language of the court, of law, and, to a great extent, of composition: Latin held its place with churchmen and chroniclers: Anglo-Saxon was cherished chiefly by the people. But in the course of Edward's reign, the popular branch of the English constitution put on its outline; and the weight acquired by cities gave consideration to the form of speech employed by their inhabitants. So were ushered in the best glories of the age of Edward III., and the parliamentary recognition of the English tongue as that of legislation. Up to that period England had received as large an addition to her vocabulary as the familiar intercourse of the Normans with her previous population could confer; and the dissemination of the romantic poetry had incited her minstrels to translate or imitate, in their own idiom, the models supplied through the same channel. Not to dwell, however, on their ballads; nor on the

* A. D. 1450. † Born A. D. 1494.
‡ Heidelberg. A. D. 1346. Prague, 1348. Vienna, 1388. Erfurt, 1392. Würzburg, 1403. Leipsic, 1409.
§ A. D. 1470. ‖ A. D. 1481—1538.
¶ Emperor A. D. 1493—1519.

** A. D. 1471—1527.
†† That is from A. D. 1066, to A. D. 1307.

rhymed histories of Robert of Gloucester,* of Robert de Brunne,† or of the spirited Minot;‡ nor on the humorous but obscure *vision of Pierce Plowman*;§ we ascribe in England, as in modern Italy, the rise of genuine poetry to the prodigious talents of one man. Impelled by the instinct of a poetical mind, instructed by much study, inflamed by the credit of the Italian masters, and perhaps, in his travels, by personal communication with Petrarch, CHAUCER ‖ permitted not the cares of public life, in which he was actively engaged, to divert him from the lofty task of enriching his native language with glowing pictures of a world he knew under all its phases, and which he idealised, in so far as the principles of his art required, only by combining and concentrating things that had a literal existence of themselves. Chaucer borrowed profusely; words, forms, metres, and materials; the stock and instruments of poetry. He was a man of business, and aware of the good of trading with the capital of others. But that practical tendency which made him shun any waste of the inventive faculty, what a command did it not also give him over the realities of life and nature! He *masters*, he applies them, with Homeric familiarity and freedom. Nay, had their plan been statelier, and their rhythm more sounding, how nearly would his poems have approached even the Homeric miracles! Does any one suppose that his turn for light satire and humorous description distinguishes Chaucer from Homer? Let the portraits of Thersites, Melanthius, Irus, be compared with many passages in the *Canterbury Tales*, and that impression will vanish away.

Like Homer, too, Chaucer maintains a solitary grandeur. The grave and moral Gower ¶ was, indeed, his contemporary: the versatile, diffuse, perspicuous, but languid Lydgate ** came soon after him. They did something for the enlargement and refinement of the English language; but no one would range them with Chaucer, the poet of all ages and the landmark of his own. Nor had anything yet appeared in English prose, worthy to divide our admiration with this extraordinary writer. The travels of Mandeville,†† the bible version and theological treatises of Wickliffe,‡‡ yielded, however, certain prognostics of what might afterwards be done. But from the outbreaking of the war between the roses §§ to the accession of the House of Tudor, there occurs a dreary interval of civil confusion, and an eclipse of literature, that was feebly broken by the translations and compilations of Caxton;* though, by the introduction of printing into England, he made her acquainted with one of those mighty influences, which were to breathe new life into a succeeding age.

The early literary records of SCOTLAND are not so barren as its long turbulent state might lead us to fear. In the thirteenth century lived Thomas of Ercildoune, whose poetical talents obtained for him the title of the Rymer, whether he were, or were not, author of *Sir Tristram:* and, before the end of the fourteenth, the Scottish dialect, originally related to the Anglo-Saxon, and improved by direct communication with the north of England, was able to sustain the heroic theme of BARBOUR.† About a hundred years later, there was more difference, in some respects, between the two dialects; though the intervening time was adorned by Harry the minstrel, James I., the picturesque Dunbar, and Gawin Douglas,‡ the translator of Virgil's Æneid. Of DUNBAR, Sir Walter Scott asserts, that "he has been justly raised to a level with Chaucer by every judge of poetry, to whom his obsolete language has not rendered him unintelligible:" and were it not for an excess of sameness and of mannerism in the short poems he has left behind him, we might subscribe to this high eulogium. But James I. merits no less attention; as one whose just views of policy, and labours in the cause of good government, were not inferior to his learning and literary abilities. During his boyhood the University of St Andrews was founded; in the time of his successor that of Glasgow followed; and, in the reign of James IV., a monarch more fortunate in arts than in arms, there was erected, at Aberdeen, § a third of those institutions, to which the whole population of Scotland is so deeply indebted. Even in their infancy "the labours of these learned seminaries were not in vain:" ‖ they have continued, in every succeeding age, to do more good, and gain more honours, in proportion to their means, than any similar institutions: and, should the attempts of some to change their system ultimately prove as harmless as those of others to decry it, they may still flourish long, without diminution of their usefulness or fame.

It is conjectured, not improbably, by a recent historian of IRELAND,¶ that, in the brilliant times

* A. D. 1280. † A. D. 1303. ‡ A. D. 1352.
§ By Longland; A. D. 1362. ‖ A. D. 1328—1406.
¶ A. D. 1390—1402. ** A. D. 1440. †† Died 1372.
‡‡ A. D 1324—1384. §§ A. D. 1455.

* A. D. 1471. † Author of *The Bruce:* A. D. 1326—1396.
‡ James I. A. D. 1396—1436: Dunbar, 1465—1530: Douglas, 1475—1522.
§ St Andrews, A. D. 1412: Glasgow, 1450: Aberdeen, 1494.
‖ History of Scotland, by Sir W. Scott, Vol. I. p. 333.
¶ History of Ireland, by Thomas Moore. Esq. Vol. I.

of her scholastic greatness, from the mission of St Patrick * to the ninth century, the Filess or Bards of that island, roused by her growing intercourse with the rest of Europe, must have made a simultaneous progress in their vernacular literature. But their literature is now one of memories and fragments; more fitted to kindle the fine fancy of their legitimate descendant, than to arrest our onward march. As we draw near the date of the English invasion,† other fragments of the same class possess a stronger interest: since it seems to be ascertained that these, in conjunction, perhaps, with some remains of Gaelic song, supplied a basis for the splendid imposture of Macpherson. We turn, with a blush, from the many dismal consequences of English rule over the Irish people. It is painful to reflect that the Reformation itself, an event which falls within the opening of our second modern period, at first conduced only to the further depression of their country: but, ere that period ends, we shall have to mark the revival of letters and of science as one of the fruits of Protestant colonization in Ireland.

II. The Reformation of religion was not the only cause, at the beginning of the sixteenth century, which hurried on a general advance of the human mind and a full development of its resources. Before that great event, the rage of feudal contentions, after lingering too long in many countries, had begun to subside. In Spain and France the kingly power, raised to a commanding pitch, enabled its possessors to concentrate the energies of their subjects, and to act and war upon an ample theatre. The Papal influence was on the decline; and Rome had ceased to be the point of gravitation in European politics. In England civil broils had been at length exchanged for internal order: Germany, for a season, tasted the same blessing. The use of gunpowder gave to warfare a more regular and less savage character than heretofore; and cabinet-intrigues, whose birth-place was Italy, exercised a sway commensurate with that of arms. Now, too, the different states of Europe, not isolated as they were wont to be, were drawn by friendship or enmity into a number of close relations. And, though many convulsive shocks resulted from this approximation, as one country after another became the scene of military movements, yet, in spite of partial interruptions, the scholar and the merchant, the artist and the manufacturer, carried on their useful competition; travellers, voyagers, adventurers, continued to bring home with them accounts and specimens of all that nature or industry had done for man in the remotest parts of the earth; and knowledge and intelligence spread throughout the principal members of the European family.

For, this was likewise an era of maritime discoveries. Columbus crossed the Atlantic ocean.‡ Vasco de Gama opened a passage by sea to the East Indies.§ The world was circumnavigated.‖ What an enlargement of science, what a change in mental cultivation, could not fail to flow from such magnificent achievements! New ideas streamed in from each newly visited region: the mistakes of former ignorance and credulity were unveiled; and thenceforth it was more easy to conquer prejudice and to dispel error.

Though of all the slowest and most reluctant to retire, even religious errors were dissipated and driven from their ground.¶ Luther, Melancthon, Zuinglius, Calvin, and their disciples, collecting into a focus the straggling beams of truth, "lighted a candle, which, by God's help, shall never be extinguished."** Then was priestcraft overthrown by the bible. Then were the means of education purified and multiplied. Then was reason invited to that alliance with faith, in which the peculiar provinces and the mutual dependence of both are best seen; and freedom of thought, once trained to wrestle in the Christian arena, gradually extended its dominion along all paths that can be travelled by the human understanding. From that day to this, unchecked by temporary difficulties, returning rapidly from every deviation, intellect has advanced with an erect port, and a firm step. Triumphing over the wiles of jesuitstry and the flames of persecution, the genius of Protestantism has diffused countless benefits even throughout lands which adhere to the creed and rites of popery. Literature received from it an immediate and invigorating impulse. The vernacular dialects were cultivated, in some countries, with fresh animation, and took into their very substance the energy of those bold champions, who employed them in the defence or inculcation of their doctrines. The knowledge of the ancient tongues was prized and promoted as indispensably necessary for the critical interpretation of scripture.

The revival of ancient literature had been going on for more than a hundred years before the Reformation. Dante called Virgil his master; and we have already glanced at the learned labours and enthusiasm of Petrarch.

* A. D. 432. † A. D. 1170.

‡ A. D. 1492. § A. D. 1498. ‖ A. D. 1522.
¶ The Reformation, A. D. 1517.
** These are the memorable words of an English reformer.

Italy was the first to prove, by her appreciation of the resuscitated classics, that the germ of taste was not dead within her bosom. Nor did any feeling of hereditary pride confine her within the pale of Roman letters. Towards the end of the fourteenth century, she listened once more to the dictates of Grecian teachers; and when the fall of Constantinople, in 1453, forced crowds of enlightened Greeks to flee from the Turkish sword, it was Italy that welcomed the fugitives: there the generous wisdom of many rulers raised them to wealth and dignity; and thence, in spite of opposition in England and elsewhere, the lessons they had given were ultimately imparted to the leading nations of Europe. The political greatness of the Italians did not endure long. By the discovery of new avenues for commerce, they lost their trade. War robbed them of independence. But they still grasped at the wreath of genius; and we shall see that, for a time at least, they won and wore it. From Italy, Spain and Portugal caught the classic fire that glows in their best poetry and eloquence. Then came the Elizabethan age of England. More slowly dawned the brightest era of France. Germany, swayed to and fro by contending forces, last perceived the true route she ought to follow, and which has conducted her to so many triumphs. On all these countries, on all their great minds, the literature of Greece and Rome has acted with an operation more or less direct, but in the end always powerful and always beneficial. It has elevated the tone of history; guided and enriched philosophy; modulated the periods of oratory; imped the wings of song. And, unless wickedness and folly are destined to rebarbarise mankind, that literature must ever continue to stimulate and light them on their intellectual way; by its difficulties, which exercise without wearying the mental powers; by its beauties, which have stood the brunt of time; by its lofty independence of changeful fashions and local partialities, through which it forms a standard that all ages may regard with the same fondness, and all nations cherish with the same pride.

Nor should it be forgotten that, in conjunction with the treasures of the Greek and Latin tongues, those of the Hebrew language were soon brought, by the zeal of Reuchlin * and his followers, into the hands of the Christian world. Moreover now, exactly at the moment when it was most needed, appeared that great invention, without which these treasures, displayed perhaps for a brief interval, rather to dazzle than instruct, would have enjoyed no wide and lasting circulation. The art of Printing,† the most precious gift to man since that of an alphabet, obtained for genius the whole earth as an audience. We are accustomed to dwell on many of the grand results of this invention; how it helped to break the chains of superstition, to found and fence the citadel of reason, to shake despotism, to render every future conspiracy against knowledge unavailing. Let us rank among its best fruits, that by it the stores of ancient learning were instantaneously diffused and made immortal.

And never, we repeat, from that moment of its complete awakening, has the universal mind of Europe relapsed into slumber. Look at her political condition from the Reformation to the commencement of the eighteenth century. Italy, indeed, fell. Spain did not long occupy that pinnacle on which she stood at the abdication of Charles V.‡ Her riches, amassed for the most part by so much crime; her insolence, that caused her to aspire to the mastery of the world; her population; her moral and intellectual might; these were exhausted, humbled, prostrated, by the wars of the succeeding hundred years.§ But in England, France, and Germany, those civil and religious strifes, which broke out anew, fierce and desolating as they were, produced no such final consequences. The tempest that passed over them seemed but to quicken the virtues of the soil. England established her Protestant faith; secured her liberties; became mistress of the sea. France forgot a bloody series of insurrections, massacres, and assassinations in the glories of Louis the Fourteenth.‖ Germany arose from the ashes of the thirty years war.¶ Look, in the next place, at the state of European letters for the same period. Though the resurrection of the classics was followed by a burst of pedantry; by the fooleries of the Apuleian and Ciceronian sects; by a serious design of some scholars to make Latin the common literary language; yet these evils quickly vanished, leaving nothing but good behind. Though the din of senseless metaphysics resounded again; though the mysteries of the cabbala, the absurdities of astrology, theosophy, and magic, engrossed some subtle intellects; though there were faults of puritanism, faults of licentiousness, faults of affectation; still was there evermore a host of high minds, that either bowed not down at all to the Baals of the day, or ennobled their idolatry by the splendours which they threw around it. Our review of

* A. D. 1455—1522.

† A. D. 1430—1440. ‡ A. D. 1555.

§ Down to the peace of Westphalia, A. D. 1648.

‖ A. D. 1643—1715. ¶ A. D. 1418—1648.

separate nations, which we must now hasten to resume, will show that this assertion is in strict accordance with truth. It will show that, however the tide of genius might ebb or flow in particular countries, it never failed at once over the whole surface of Europe.

The long series of calamities under which ITALY groaned, from the irruption of the French in 1494; the defeats, the pillage, the misery of every kind, that she endured; could not divert her from the arts and sciences, from the interpretation of the ancient classics, and the extension of her own literature. It is true that her governors and statesmen soon ceased to exercise a munificent and steady patronage of intellectual merit. Leo the tenth * sat only eight years on the papal throne; and few after him were the pontiffs or princes, at Rome or Naples, Florence or Milan, Mantua or Ferrara, who loved learning and talent for their own sake, or found room for real generosity amid the cruelty, voluptuousness, and fraud, which filled their souls. Yet in spite of violence and wretchedness on all sides; of contempt, persecution, and caprice in high places; that mental activity which had been so wonderfully roused, held on its way rejoicing, and gained for the sixteenth century the glorious appellation of the *good age* of Italian letters. The French, Spanish, and German invaders, who gambled with the political fortunes of Italy as their stakes, were constrained to acknowledge her literary ascendancy. When the main body of Greek and Latin authors had been fairly published and devoutly studied, the Italians began again to exult in the beauties of their own tongue, and endeavoured to learn from those models which it, in common with the classical languages, could already supply, a consummate elegance of thought and style. These endeavours were not always happily directed. The multitude of academies or associations, which sprang up, with a variety of silly names and ceremonies, in the large towns, were productive of little but harm. It was no easy thing, no task for pedantic brotherhoods and dilettanti meetings, to effect a union between the spirit of the antique and the spirit of the romantic literature: the one simple, severe, and aiming to impress the mind by the entire symmetry of its creations; the other, like its materials, rich, fantastic, various, and aiming to rouse our sensibilities by the perfection of details. Every scheme for reducing romantic subjects to the antique mould was sure to end in disappointment: the difficult problem was how to preserve for them their proper scope and figure; yet crown and circle them with rays of ancient grandeur and beauty.

That problem was first solved by ARIOSTO.† In his hands the chivalrous epos of Pulci and Boiardo acquired unlooked for graces. The youthful extravagance of his prolific fancy was so far chastened by a classical taste, that while it wantons in eccentricity, it avoids the monstrous: and, without any semblance of the Homeric plan, a goodly portion of Homer's vein, especially of that which is apparent in the Odyssey, may be detected in the mingled sprightliness, tenderness, and fervour of the *Orlando Furioso*. There is not, however, the good faith of the thoroughly national and seemingly simple-hearted Greek. That could hardly be expected. A sincere belief in the marvellous, and anything like a basis in actual life for the ideal world of knight-errantry, were so long past, that there was something ludicrous in romantic actions and adventures, which must have instantly struck the eye of genius, and might justify a tone of irony in its mode of treating them. Yet with all his irrepressible feeling of the comic side of what he painted, there was too much of the true gentleman in Ariosto's inmost soul to let him be a stranger to high passions: hence that love of fealty and courage which stores his pages with at least one authentic and applicable lesson for mankind, as long as such qualities shall be held worthy of esteem. As to the heroes of his poem, Ariosto was content to take names and attributes from the *Orlando Inamorato* of count Boiardo; and, after his example, he went to Turpin's chronicle and the French trouvères for the scene, the age, and the prime materials of his plot. The fecundity of his own invention is evinced more by an accumulation of subordinate incidents, imagined and worked up with the most brilliant effect, than by any dramatic turn for diversifying character; and, though a French critic ‡ may be right in tracing through this labyrinth one purpose and one regular action, the majority of readers will still delight to think that the very disorder of the poem has a peculiar charm. Such is the grace of Ariosto's negligence: such the brightness of those pictures that he makes flit in endless, frolicsome succession before our eyes: such the incomparable felicity of his versification and his diction! Happy for us that he rejected Bembo's pedantic advice to write in Latin! Happy for us, too, that he was one "foredoom'd a father's soul to cross" by declining the profits of the legal profession! And yet, so completely does Ariosto wind into our affections, that, for

* A. D. 1513—1521.

† A. D. 1474—1533.

‡ M. Ginguené.

his sake, we almost regret that preference for poetry, which threw him upon the sullen patronage of the Cardinal d'Este, and the niggardly favours of the duke of Ferrara.

Ariosto, as we have said, has the spirit of Homer's song without its form. In the dull attempt of Trissino * to revive, in Italian blank verse, the systematic epos of antiquity, we have the form without the spirit. But forgiven be the coldness, the heaviness, the stupid gravity of his *Italia Liberata*, if either the theme, which Trissino selected, or the earnest view he took of it, had aught to do with kindling heroic fire in the breast of Torquato Tasso!† Not the world of classic images and recollections alone, but the whole realms of poetry were engraven on the learned, imaginative, sublime, pathetic, polished, feeling mind of this wonderful man, this restorer and adorner of epic song in its noblest shape and nature. All critics seem to join in extolling his choice of a subject, from the brilliant annals of the first crusade; as displaying a magnificent platform for lofty scenes, and an unrivalled combination of the marvellous with the true. Nor can it be questioned that the Fall of Troy itself scarcely rouses so many associations, or commands such universal interest, as the Deliverance of Jerusalem. This subject, under Tasso's management, has all the unity of the Iliad; it has equal grandeur; and now, for the first time, there was diffused over epic poetry a bright halo of love: not the physical passion, which the ancients commonly depicted; not the domestic feeling of Andromache and Hector; but that devout, that enthusiastic sentiment, of which the expression was, perhaps, exaggerated in the days of chivalry, but which was essentially the highest evidence of those pure ethics and liberal manners introduced among men by Christianity. With regard to the other merits of Tasso, it is amusing to contrast the opinions of his judges; the mockery of Voltaire, or the qualified praise of Schlegel, with the raptures of Sismondi. His machinery is childish and contemptible, says one; it is necessary, natural, and majestic, another replies: and assuredly, though Dante's grotesqueness is here and there not happily imitated by Tasso, there is something truly elevated in those conceptions of infernal power and eloquence, from which Milton deigned to receive a lesson. His episodes are beautiful, but they might have been placed, with equal propriety, in any other epic, says Schlegel. Schlegel might have said more justly that they are not only of matchless beauty, but most skilfully interlaced with the subject; that the magic of Armida, the charms of Clorinda, the love of Erminia (since these are specified by the critic) even where they do not conduce to the march of the plot, surround it with a lustre that makes the progress of the main action more conspicuous and impressive. It is curious to compare these differences of opinion with the controversy that raged, during the life of Tasso, between his partisans and those of Ariosto. Strange that one so proud and confident as Tasso was; so successful, too, in answering his first assailants; should have succumbed, at last, to the Della Cruscan academy, and actually recast his work, and corrected his phraseology, in deference, as it would appear, to their authority! But, persecuted by critics and by princes, Tasso has had one glory, of which they could not bereave him. He has been the people's bard. His strains have hardly yet ceased to swell the alternate songs of Italian gondoliers.

Both Ariosto and Tasso wrote many things besides their great works. The dramatic pieces of the former will be mentioned when in sketching the last period of modern literature we come to speak of the Italian theatre. But, though in that period alone the loftier kinds of the Italian drama deserve notice, we may here allude to the *Aminta* of Tasso, as belonging rather to pastoral than dramatic song. Pastoral poetry had received a new shape of mingled verse and prose from Boccacio, in which he had tried to mingle, likewise, the tone of the Virgilian eclogue with that of the romantic muse. Composed on the same plan, but with far superior elegance, the *Arcadia* of Sannazaro ‡ enjoyed at one time a degree of popularity, that carried it through more than sixty editions. It was Beccari § of Ferrara, however, who, remembering perhaps the latter form of the Greek satyric plays (for the *Orfeo* of Politien is too tragical to have been his model) brought out the first regular bucolic drama at the court of Hercules II. His dreary sentimentalism, made only worse by a seasoning of coarse gayety, was soon forgotten in the graces of Tasso's *Aminta*. Faults were entailed upon this delicious poem by the system to which it belongs; but they are redeemed by infinite beauties in the execution, and by the balmy atmosphere of love that exhales from every line. Not that quaint conceits, in the Petrarchan style, are altogether banished from the *Aminta*, any more than they are from the *Jerusalem*. By a like incongruity a chill is too often thrown even

* A. D. 1478—1550. † A. D. 1544—1595. ‡ A. D 1458—1530. § A. D. 1510—1590.

over the more animated scenes of Guarini's * *Pastor Fido:* and, as defects are easily copied, the affectation which taints these otherwise exquisite productions, became not the exception but the rule with a crowd of bucolic dramatists, male and female, who were roused to activity by their success; and whose writings, at the termination of the good age, already announced the fall of Italian poetry in that which ensued. To aid in precipitating that fall the services of the sonneteers were not wanting. To little purpose did the fiery Chiabrera,† in the most original of his numerous effusions, restore the lineaments of the classic ode, and clothe them sometimes with Anacreontic vivacity, sometimes with the serious energies of Pindar. This was but a transient gleam, mocking the intellectual ruins of the seventeenth century. For, coeval with Chiabrera was Marino,‡ the arch corrupter of Italian taste. What need is there to enumerate and analyse his many kinds of composition? In all, made wanton by the very talents he undoubtedly possessed, and stung by a lust of novelty, that has frequently proved mischievous to literature he strove to outshine his mighty predecessors by substituting bombast for dignity, effeminacy for tenderness, the play of words for genuine fancy. To the disgrace of Italy, nay of Europe, Marino had everywhere his imitators, and some who, like himself, were for a season so famous, that in more than one country it required a vigorous exertion of recovered mental power to trample their reputation in the dust. In Italy they were adored and copied through the entire era of the proverbially degenerate *seicentisti*. Only towards the termination of that era are some sparks of true feeling, of patriotic sentiment, again perceptible in the verses of the Florentine Filicaia.§ Yet, amid the general degradation of the seventeenth century, it would be unfair not to distinguish the burlesque epic of Tassoni;‖ a good specimen of that national species of satire, which Berni ¶ had made classical about a hundred years before him.

Whether it were because most of the prose-writers, being also poets, wavered between two manners; or because a painful imitation of the ancients, in many instances, hampered them; or because there were in the example of Boccacio, the great father of Italian prose, certain provocatives to a faulty exuberance of style, which the opposite example of Macchiavelli could not correct; there is no doubt that, with these illustrious exceptions, the authors of this class in Italy fall short of her highest poets. After the days of Boccacio and Sacchetti, history became the field of their triumphs. But he who indisputably excelled the rest in historical composition, did not confine himself to that province. The too famous *Prince* of Macchiavelli,* and his Reflections on the First Decade of Livy, are as well known as his Florentine Annals; and, in the estimation of some, the Reflections far surpass his other works. We leave the political system of this extraordinary individual to the loud reprobation and the ingenious apologies which it has alternately provoked; admitting, however, all the weight of the general sentiment that has identified his name with principles of guile and cruelty. No one will disparage his penetrating sagacity, his profound knowledge of antiquity; nor regret anything in his clear and nervous style, except too great a monotony in the structure of his periods. Guicciardini † has more variety and harmony in this respect: yet he does not approach Macchiavelli in force and depth of thought, or true manliness of expression. The History of the Council of Trent, written with much bold simplicity by Sarpi,‡ and that of the French civil wars by the acute and entertaining Davila,§ illustrate Italian prose at an epoch fatal to poetry: but, on the other hand, the ambitious parade of Bentivoglio ‖ makes it manifest that no kind of composition was wholly exempt from the besetting sins of the seventeenth century.

From the literature of Italy to that of Spain is an easy transition. The progress of letters in the Spanish peninsula was materially influenced by Italian precedents at the most brilliant point of the period which we are now considering. Not but that the original genius of the Spaniards, and their proud consciousness of national greatness, had much to do with the maintenance and improvement of their literature, in the face of the Inquisition itself. Released by the conquest of Granada ¶ from the presence of internal foes, prosperous at home and powerful abroad, Spain naturally rose to high mental dignity; and with all that she gathered from foreign contributions, her writers kept much of their native vein, more free than before of Orientalism, but still breathing of their own romantic clime. A close connection, however, for more than one hundred years, with Italy, familiarised the Spanish mind with the eminent authors of that country, and with the

* A. D. 1537—1612. † A. D. 1553—1637. ‡ A. D. 1569—1625. § A. D. 1642—1707. ‖ A. D. 1565—1635. ¶ A. D. 1490—1536.

* A. D. 1469—1527. † A. D. 1482—1540. ‡ A. D. 1552—1623. § A. D. 1576—1631. ‖ A. D. 1640. Author of a history of the wars in the Netherlands. ¶ A. D. 1492.

ncient classics which she had recalled from the omb. It is said that the advice of a Venetian mbassador first drew the famous Boscan * to an cquaintance with the Italian taste. His friend Garcilaso de la Vega † shared with him the task of refining Spanish poetry according to the standard he had set up. Diego de Mendoza ‡ "the great historian, poet, soldier, and statesman," as he is styled by the vigorous pen of Mr Lockhart,§ took the same side; and the opposition offered, the scornful reproaches showered upon them, by the disciples of the old Castilian school, were unable to defeat an enterprise thus begun and thus seconded. Let us bestow a few sentences on this triumvirate.

Boscan was a bold innovator. He availed himself, indeed, although born in Catalonia, of the Castilian dialect, which the union of Castile and Aragon had made the language of all Spain. But forsaking the national style of his earliest compositions, he introduced into the second book of his poems, consisting of those songs and sonnets, by which he became renowned, the Italian versification, in the whole compass of its rhythm, rhyme, and metres. The Italian spirit he sought to imbibe by imitating Petrarch: and, in point of expression, the imitation is very successful; yet the Spaniard has more heat and force, more of the struggle of passion against reason, than we find in the melodious reveries of the Tuscan poet.

The few but exquisite poems of Garcilaso were well entitled to appear in the same volume with those of Boscan. For he, likewise, emulated Petrarch; and his sensibility, his delicacy, perhaps also his false wit, bring him nearer than his friendly rival to their common model. Garcilaso is even better known as having taught his countrymen the soft and melancholy notes of the pastoral reed. Here, too, he followed, or wished to follow, at once Virgil and Sannazaro; and was himself followed, but not overtaken, by a host of Spanish bucolics.

Diego de Mendoza should rank above his brother triumvirs. The Spaniards, in assigning him the lowest place, regard only the inferior sweetness of his sonnets: but Mendoza carried into other branches of literature the forcible and various talents which empowered him to play so prominent a part in public life. Among other things, he polished and perfected the old Castilian *redondilla:* he composed, in old age and retirement, a history of the Moorish revolt,‖ whose consummate elegance hardly atoned, in the eyes of the Spanish court, for the boldness of its details: and, better than all, while yet a student at Salamanca, he founded by his comic romance, *Lazarillo de Tormes*, a species of fiction that has been subsequently enriched by some of the first writers of Europe. In classical literature, Lucian and Petronius may be said just to graze the edge of this domain; but neither of them exhibits such an intimate knowledge of man, and of a peculiar people, as is here revealed by a Spanish youth before emerging from the precincts of an university. This extraordinary precocity of Mendoza was an omen of the future statesman: we fear we must add, in his case, of the future knave.

The Spaniards dwell with complacency upon other literary names, pertaining to the same period with the three which have been now singled out. They boast of their *divine* lyric, for so they term him, Ferdinand de Herrera;* of the harmonious, religious, and withal Horatian Ponce de Leon;† of Miranda's ‡ Castilian eclogues; of Montemayor's § pastoral romance, a work as much admired and copied, at its first appearance, as the *Amadis* had been before, of Ercilla's ‖ *Araucana*, an epic whose merits were wildly exaggerated by Voltaire. But an European reputation, a place in the memories and hearts of many different races, was reserved for a genius of loftier grade than these. The year 1549 was made memorable, in Spanish story, by the birth of Cervantes.

Few readers need to be told that the author of *Don Quixote* wrote many other books, in a variety of styles, and with various degrees of success. But with that great production it would be as absurd to compare the other fruits of the same pen, as it would be to comment at large upon a work familiar to every school-boy. We believe, moreover, that the real aim and merits of Don Quixote are very generally appreciated. If it be read once for the mere adventures, so delightfully combining the romantic with the humorous, further perusals, (and who is content with only one?) seldom fail to beget veneration for that genius, which could unite with the finest and most exterminating satire upon books of chivalry a manly and loyal sense of all that is generous, sublime, and wise, in the character of the true cavalier; which could expand the rambles of a crazy gentleman and his attendant into a picture of Spain and its inhabitants, so

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* A. D. 1500—1544. † A. D. 1500—1536.
‡ A. D. 1500—1575. § Notes to Don Quixote, Vol. I. 363.
‖ A. D. 1568.

* A. D. 1500—1578. † A. D. 1527—1591.
‡ A. D. 1494—1598. § A. D. 1520—1561.
‖ A. D. 1533—1583.

comprehensive and minute as to leave us nothing to learn about her villages and castles, her cities and sierras, for the age in which the scene is laid; which, in depicting two persons, as strongly opposed as is the world of poetry to the world of prose, and yet, like other extremes, meeting on certain ground common to both—one erring from visionary enthusiasm, and one from self-blinding calculation—could at the same time hold up a mirror of human nature, that will show to all men some of their own features. And Cervantes, likewise, with the highest creative power, has forced us to love his creations. With all his follies we love Quixote; with all his selfishness we love Sancho. Our sympathies descend, as no other history or fiction has made them do, to the horse of the master, to the ass of the squire. Rozinante and Dapple are cherished names with thousands who never heard of Alexander's Bucephalus, or of the Cid's Bavieca.

In 1599, six years before the first part of Don Quixote was published, Mattheo Aleman, by his *life of Guzman d'Alfarache*, kept up the Spanish predilection for novels of roguish adventure. A little later, among the manifold writings of Quevedo,* there are some whose gay wit and satire have induced a French critic to call him the Voltaire of Spain. In a more serious vein, the historical works of the elegant Mariana,† who was wise enough to render his original Latin into his vernacular tongue, and of the pure, energetic, faithful Antonio de Solis,‡ help to redeem the literary vices of the seventeenth century. But during that space of time, and especially from the middle to the end of it, the decay of letters kept pace with the fall of the Spanish power. The humiliation of both seemed completed in the reign of the second Charles.§ Unfortunately for the Spaniards, political animosity forbade them to learn anything from Britain or from France, at an epoch when either country could have taught things worthy of all acceptance. But with the Italians they maintained a close relation in the decline as well as in the improvement of their literature. Between these nations there was a reciprocal contagion. The Italian Marino had been infected by a Spanish education, and in return he gave lessons at least as bad as he received. Gongora || was his contemporary in Spain, and his rival in corrupting the taste of a whole people. From the ability of this writer, though great, from his wit, though rare and subtle, no results could flow except an aggravation of that tendency to florid pomp and affected refinement, which the Spaniards of themselves, and as a consequence of their old connection with the Moors, were sufficiently inclined to. Gongora became the leader of two sects that vied with each other in absurdities which it would be painful to examine. Extravagance was now the besetting sin in poetry; childish fastidiousness in prose.

Nevertheless we may part from Spanish letters (since there will be little to say of them hereafter) upon higher ground. In Spain, as in other parts of Europe, a regular theatre grew out of religious shows and acted allegories. Then pastoral poetry was dramatised. Then romance was dramatised. Plays of incident and intrigue, without particular aim or good painting of character, were brought out by the elder Naharro:* their coarse and ragged outline was soon filled up with more humour and sententiousness by Lope de Rueda: a few strokes from the pen of Cervantes embellished the rude but ripening art. It was not, however, in dramatic poetry that the magic of his pen was destined to work its miracles. Passing over, therefore, both his lighter pieces, and the traits of Æschylean power and patriotism discernible in his *Numantia*, we hail in Lope de Vega† the great father of the Spanish stage. The instinctive acuteness of that prolific genius divined the taste of his countrymen; and he fed their appetite for complicated plots and extraordinary adventures with novels in a theatrical form. Such is the real nature of Lope's *comedies*, as all his dramas have been styled. Exactly as the substance of novels varies; mournful or humorous, historic or ideal; so varied this species of comedy. The one thing needful in it was a tangled intrigue to keep curiosity alive. After the time of Lope sundry divisions and subdivisions of the art were enumerated: *divine* and *human* comedies; comedies *of the cloak and sword; lives of saints* and *sacramental acts*. Through the whole circle of these, and other varieties, as yet undistinguished by name, Lope de Vega ran with inexhaustible fertility and readiness. He wrote more than 2000 plays. He often composed an entire play in less than twenty-four hours. What wonder that his conceptions should be often rather wild than bold: that his style, though poetical, should be too frequently careless; careless even in the profusion of its flowers, which he stayed not to cull or to arrange! Not so daring in the first conception, but more regular in plan, more finished in execution, were the dramatic works

* A. D. 1580—1645. † A. D. 1533—1623. ‡ A. D. 1616—1686.
§ A. D. 1665—1700. || A. D. 1561—1627.

* About A. D. 1510. † A. D. 1563—1635.

of CALDERON.* If Lope originated the Spanish comedy, Calderon improved it. He drew character more vividly than Lope; he unravelled intrigue more skilfully. And yet Calderon lost sight of nature in many of his portraits; and despised simplicity in much of his expression. He is so addicted to strained conceits, to startling hyperboles, that it is difficult to understand the intense devotion of Schlegel to his memory. And then to exalt Calderon as the poet of Christianity! The poet of Catholicism would have been a fitter title.

One word on PORTUGAL for the sake of Camoens. The dialect of that country was distinguished from the sister language of Castile by lighter and softer forms. It was early applied to the purposes of poetry; and the national jealousy of the Portuguese was sufficient to make them contend with their neighbours in every other branch of letters. Some of those natives of Portugal, who shone in Spanish composition, such as Miranda and Montemayor, took care to write also in their own tongue. But it has been justly said that the Portuguese literature is complete without being rich. Although, in following all the changes that affected the intellectual condition of Spain, in yielding to the influence of the Italians, and to the influence of the classics, it still preserved an independent tone; yet in only two departments was remarkable excellence achieved. The bucolic muse was most at home on those banks of the Tagus, which LOBO † celebrated; and the great Portuguese epic transcends all the similar productions of Spain. As Portugal had a golden period of maritime enterprise and glory,‡ so the very spirit of that period seems to be infused into the mind of CAMOENS,§ and to sustain the long and towering flight of his *Lusiad*. That poem has some undeniable defects. Its subject, the discovery of India, is obviously rather historical than poetical: it is not so much a regular epic, as a gallery of pictures from the Portuguese annals, set in an epic frame: and the mixture of different mythologies, though not unknown in other works, is clumsy and revolting. But it is equally undeniable that the genius of Camoens has caught from the classic poets of antiquity their clearness of intuition, their inventive skill, their lively and elegant simplicity, without ever forgetting his own age or the land of his fathers. He deserves all this praise: and if not enough to exalt him to the side of Tasso, it is enough to place him not far below that radiant light of Italy. In their fortunes these illustrious contemporaries were too much alike. Alfonso imprisoned Tasso: Sebastian let Camoens starve. We rejoice in the retributive ruin of Ferrara and of Portugal. As for the latter, her neglected bard was speedily revenged by Phillip II., and the enormities of Spanish oppression. And, though the Portuguese at last shook off that iron yoke, among all the honours of the house of Braganza, they have never been able to reckon a rival for Camoens.

From the "sole dominion," or at least the "surpassing glory" of this luminary in the western horison, let us divert our eyes to another quarter, where the heavens are "sown with stars, thick as a field." Simply to record the names of the chief ENGLISH authors, between the beginning of the sixteenth century and the reign of Queen Anne, would require no little space. Many we must omit altogether: on the greatest we can do no more than touch, with a hasty though reverent hand.

Soon after the union of the Roses,* some rays of intellectual light began to glimmer again. But we must pass by Barklay,† and other obscure versifiers of the time of Henry VII. In the next reign we must not be delayed by the king's fitful displays and capricious patronage of talent; nor by Wolsey's magnificent zeal for true learning; nor even by the sonnets of the gallant and gentle SURREY,‡ who hoped to make his Geraldine as famous as Petrarch's Laura, and who certainly copied Petrarch, in his best mood, with brilliant success. Sonnets, however, have never built up a high reputation in British literature; though Shakspeare and Milton sometimes imprisoned their elastic thoughts in that durance, and later writers have been slow to discover that the masculine spirit of our poetry is equally averse to confining a rich conception, and to expanding a poor one, to the limits of fourteen lines. Wyat, likewise, the friend of Surrey, must be passed by; with a regret that is roused less by his sonnets, stuffed as they are with Italian conceits, than by the ease and point of his satirical epistles, so superior to the acrimonious grossness of the scurrilous ballad-monger Skelton.§ Over the epoch of the bigoted Mary we will not linger. Yet genius languished not in those dreadful days. About the close of her reign there was planned and partly composed the famous *Mirrour for Magistrates*,‖ an allegori-

* A. D. 1601—1687.
† A. D. 1550.
‡ A. D. 1411—1578.
§ A. D. 1524—1579.

* A. D. 1485.
† Imitator of Brandt's *Ship of Fools*, a German satire. About A. D. 1500.
‡ Executed A. D. 1547.
§ Skelton published in 1512; died in 1529.
‖ A. D. 1557: published, A. D. 1559.

cal poem on the unfortunate characters of English history, which, if it borrowed unreservedly from Virgil, Dante, and Boccacio, was at the same time instrumental in suggesting the rudiments of his manner, style, and metre, to the author of the *Fairy Queen*. But now bursts upon us the AGE OF ELIZABETH;* if that glorious period must still take its designation from an able mistress of police—perhaps a great sovereign,—but certainly a heartless, tasteless woman, whose best public virtues were private vices; who prated of humanity, while she committed murder; and pretended to love letters, while she neglected their brightest ornaments. Call it rather the age of Spenser; the age of Hooker; the age of SHAKSPEARE, greatest of earthly names. It is true that Elizabeth encouraged learning: or rather, though she herself understood and cherished only the triflings of pedantry, yet even this was productive of good in a country, where the reception of the ancient classics had been so slow and sullen that Erasmus † himself had failed, at the two Universities, to make an impression in their favour. Nor can it be denied that by upholding, from whatever motives, the Protestant religion, Elizabeth guarded a mainspring of free, excursive thought, whose impulse was keenly felt in literature. And, by authorising that version of the Scriptures, which became, under her successor, the basis of our present English Bible, she both supplied, according to a philosophic historian,‡ "the richest store-house of the native beauties of our ancient tongue," and, in the emphatic words of one, who always criticises well when he knows his subject,§ "gave a *mind* to her people." But the grand workings of that mind were from below; not stimulated so much by royal or noble patronage, as by the innate and salient vigour of the middle classes. Their healthy appetite was now no longer to be satisfied by sonnets like Surrey's; nor by buffooneries like Borde's;‖ nor by epigrams like Heywood's, though his "merriments moved even the rigid muscles of Queen Mary;"¶ nor by mere *inductions* like Sackville's.** While on the one hand intellect was roused and information spread, and on the other hand enough of romance and superstition for the purposes of fancy still remained, to these there was superadded the mental aliment derived from translations of the classics, from the Italian literature, and that of other modern countries; and all together broke into a flame in the poetry of SPENSER * and of SHAKSPEARE.†

Not to speak of the former as a pastoral poet, nor with reference to any work except the *Fairy Queen*, we cannot concede to a German critic ‡ that a comparison of this with the *Orlando Furioso*, which it resembles in many both of its faults and beauties, would be prejudicial to Spenser. Granting the Italian poem to be a labyrinth of perpetual vicissitude, is it fair to call the English one merely "a well laid-out garden of tiresome sameness?" This seems an inconsistent mode of characterising that which is admitted to be the fruit of "an inexhaustible fancy," and which is, indeed, full of such variety as necessarily flows from great inventive and descriptive powers. As for the *style* of Spenser, his slightest effort appears ever sufficient to make it all alive with images and words "discolour'd diversely,"

> "Like to an almond-tree y-mounted high
> On top of green Selenis all alone,
> With blossoms brave bedecked daintily;
> Her tender locks do tremble every one
> At every little breath that under heav'n is blown."

And the wide compass of his *music*, too, must be described in some of its own exquisite modulations; for, in that music

> "The silver-sounding instruments did meet
> With the base murmur of the water's fall;
> The water's fall, with difference discreet,
> Now soft, now loud, unto the wind did call;
> The gentle warbling wind low answered to all."

On Shakspeare what volumes have been written; what volumes could be written still! But would it not be absurd to expatiate here upon the distinctions between the classical and the romantic drama, when, after all, these lie so much in the externals and accidents of poetry, so little in its essence, that there is not one vital principle of Aristotle's which may not be illustrated out of Shakspeare? Would it not be absurd to debate the comparative excellence of Shakspeare in Tragedy and Comedy, when the recollection of Othello rushes on the mind in company with that of Falstaff; or when we reflect on the ever-mingling threads of mortal destiny, made up of contrasts, that are so faithfully interwoven in the tissue of his plays? Everything that a poet needs to know, he knew: everything that a dramatist should imitate, he imitated. Not set by his side, but shrined within his bosom, was that fabled dæmon, at the waving of whose wand houses were unroofed, breasts uncovered, remotest

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* A. D. 1558—1603. † A. D. 1467—1536.
‡ Mackintosh. § Hazlitt. ‖ A. D. 1542.
¶ Warton's History of English Poetry, III. 371.
** Induction to the *Mirrour for Magistrates*.

* A. D. 1553—1598. † A. D. 1564—1616.
‡ Eichhorn: *Geschichte der Litteratur*, IV. 614.

solitudes disclosed; so that, at one time, he could exhibit "all the world a stage, and all the men and women merely players;" at another time, he could bid "close pent-up guilts rive their concealing continents;" at another, could summon up before him "antres vast and desarts idle" to be made populous with the fantastic beings of his own imagination. Of Shakspeare, an universe in himself, it seems superfluous to add that he is to many minds the whole British theatre. In a sketch, at least, so cursory as this, we shall not attempt to chronicle its history on either side of that engrossing name. Who would bear with us in going back to the *miracles* and *moralities* of the elder times; to the elements of comedy in *Gammer Gurton's needle*, or of tragedy in Sackville's *Gorboduc*? Full of the image of Shakspeare, who could descend to even the best of his successors: to the forcible Massinger; or the pathetic Otway; or the sparkling, rakish Farquhar; or the brilliant Congreve; or the elaborate Sheridan; admirable painters as they all are, in their several styles, of the lights and shades of artificial life? And, if it be true that, among contemporary dramatists, Shakspeare was not a *single* prodigy, but only the greatest of many wonders, yet are not Webster and Deckar, Marston and Marlow, Middleton and Rowley, acknowledged by their eulogists to have sunk into oblivion? Nay, for a thousand who know Shakspeare, is there one well versed in the learned Jonson; or the critical Beaumont; or his other soul, the most flowery, most ambitious, most poetical Fletcher?

Shakspeare and his contemporaries bring us just within the verge of the seventeenth century, so memorable in our annals for the long struggle against the arbitrary principles of the House of Stuart, which it witnessed, and for the final triumph of liberty over both the arms of her enemies, and the far more dangerous and disgusting crimes and follies of many who called themselves her friends. Throughout this period, notwithstanding numerous evils, which Providence alone could have over-ruled for ultimate good, the advancement of letters was not retarded. Upon the throne, the pedantry of James I. was countervailed by the elegant taste of his son; and even his dissolute grandson, with all his French predilections and itch for obscenity, showed himself able to appreciate those more manly attributes of British literature, which soon afterwards derived fresh vigour from the Revolution of 1688. In poetry, we boast of Hall, Cowley, Waller, Milton, Butler, Dryden: in prose, besides some of these poets, who were masters, likewise, of the other branch of composition, we may distinguish Brown, Taylor, Barrow, Tillotson, and Temple.

Bishop Hall,* who claims, not quite justly, to be esteemed the earliest English satirist, imitates Juvenal, Persius, and occasionally Horace, with so much wit and energy as to verify those funereal lines, which say of him:

> "Whom Ashby bred and Granta nurs'd,
> Whom Halstead and old Waltham first
> To rouse the stupid world from sloth
> *Heard thund'ring with a golden mouth.*"

Cowley,† though led astray by an erroneous school, compensates for his quaint, perverse metaphysics, by dazzling gleams of a better nature that was sometimes more powerful than his system. Waller,‡ the very father of smooth versification in our language, was lucky in that vein of song which calls upon its author for no depth of passion or soaring pitch of thought. In many particulars these poets are unlike, but in both we perceive a certain polish of courtesy and gallantry, which kept off the puritanical rust of their times. And Milton,§ too, in all the nobler parts of his works, was at a measureless distance from the puritans. What has that hateful class of men, what have their dishonest advocates, to do with anything but the dross and rubbish of his soul? We will give up to them the sophistry and bitterness of his controversial pen, the most lumbering portions of his prose, and the flattest lucubrations of his muse, when she grows polemical. But what have they in common with him whose stately verse adorned the masks and revels of our prime nobility; with that beautiful youth, who slept beneath Italian shades, not unvisited by dreams such as haunt a land of poesy and love; with that nursling "of delightful studies" who, when he girt up his loins, in maturer age, for an effort which "aftertimes should not willingly let die," it was to wrestle with the mighty champions of Greece and Rome, in the strength of a kindred inspiration? How could the barbarous precisians of his day, or how can the canters of the present age, those who, reversing the benevolence of Christianity, would turn the racy wine of life into the stagnant waters of their own sour fanaticism, pretend to sympathise with Milton in his heathen lore and classic imagery, his luxuriance of amorous sentiment, his warm, rich portraitures of beauty and of joy? Yet these are the things by which he now lives, and for which he will continue to be most dearly prized:

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* A. D. 1574—1656. † A. D. 1618—1667.
‡ A. D. 1606—1687. § A. D. 1608—1674.

> "Whatever hypocrites austerely talk
> Of purity, and place, and innocence,
> Defaming as impure what God declares
> Pure, and commands to some, leaves free to all."

When we think on some of these things; on the *Lycidas* and the *Comus*, or the *Allegro* and the *Penseroso*, or Adam and Eve in Paradise, it is difficult to remember that intense loftiness is also characteristic of Milton; that to hold long communion with him, in fitting mood, is a labour, though an elevating labour; and that we ever and anon

> "Strain'd to the height
> In that celestial colloquy sublime,
> As with an object that excels the sense
> Dazzled and spent, sink down and seek repair."

Let us turn then, for relief, to *Hudibras* and Butler.* Here is an incarnation of the highest wit and the grotesquest drollery. Here, in a peculiar sense, is the poet of the puritans; one who was never weary of persecuting their vices with satire so searching and so true, that it will apply to grim and solemn knavery at all times. But if the reader be tired at last (the author never seems to be so) of incessant epigrams, he may, about the same time, exchange the restless activity, the short quick thrusts of Butler for "the long-resounding march and energy divine" of Dryden:† of Dryden, who if like Butler he is an adept in the poetry of wit, yet clothes his wit in robes more flowing and magnificent. But Dryden is much more than a witty poet; and laughs at the system-hatching rage of those who would shut him up in a new class, apart from the great imaginative writers. Let it be remembered that his ode on St Cecilia is the finest lyric composition since Pindar: that his Satires are vividly descriptive as well as declamatory: and that his Tales must have done something besides perfecting the language of English verse, to acquire, as they have acquired, a general popularity.

In his plays Dryden sacrificed to the corrupt taste of too many among his contemporaries. But for this fault he almost atones by his nervous, nimble prose, which ushered in the perfection of that species of writing in the subsequent century. He was a fit associate for Tillotson‡ and Temple§ in the work of reforming our prose-style; which so greatly needed reformation. Perhaps Dryden, in this respect, was the most useful of the three: since he avoids both the frigidity that is coupled with the clearness of Tillotson; and the diffuseness that mars the elegance of Temple.

* A. D. 1612—1680. † A. D. 1631—1701.
‡ Died A. D. 1694. § A. D. 1628—1698.

Of his predecessors, Cowley did most to lighten and to polish prose: but though, before him, by the version of the Bible, a noble corner-stone had been laid, this part of literature was long inferior to poetry in its structure. How justly has the sagacious Coleridge said of the English prose-writers from the beginning of the reign of Elizabeth to the end of the reign of Charles II., that they are usually "rich in various knowledge, exuberant in conceptions and conceits; contemplative, imaginative, often truly great and magnificent in style and diction, but, doubtless, too often big, stiff, and *hyperlatinistic*." From this criticism neither Bacon,* the proudest name that science ever shared with literature, nor the self-kindling, exhaustless Taylor,† nor the gorgeous Milton, can be withdrawn. And of Sydney, Hooker, Brown, Burton, Barrow, notwithstanding their high and varied excellencies, the same judgment will hold good.

In Scotland the quick progress of the Reformation, when it had once fairly begun, bears testimony to the then advanced state of her intellectual culture. Yet religious controversy, or the political divisions with which it was mixed up, produced more lamentable consequences there than in the neighbouring country. By these the prosperity of the Universities was checked, and the progress of letters delayed. Again, the junction of the English and Scottish crowns,‡ although the forerunner of immense advantages to both kingdoms, at first only withdrew from Scottish literature the stimulus previously afforded by the presence of a court, the concourse of nobility, and the sense of perfect independence. Then came the conflict between rival forms of protestantism, in which both sides lost sight of christianity, and the muses were scared away from a distracted people. The establishment of the Presbyterian discipline at last opened a path for the return of national peace and polite learning; but from the time of James IV. to that of Queen Anne the great literary names of Scotland are few. We must not, however, forget Sir David Lyndsay,§ a terse rhymer, sometimes a good poet, but one whose stinging satire and familiar boldness made it lucky for him that he enjoyed the protection of the throne: nor Drummond of Hawthornden,‖ "whose labours in verse and prose" according to his editor in 1659, "shall live and flourish in all ages, whiles there are men to read them, or art and judgment to approve them." Yet, in neither style would this writer

* A. D. 1560—1626. † A. D. 1613—1667.
‡ A. D. 1603. § A. D. 1490—1557.
‖ A. D. 1585—1649.

have eclipsed Buchanan,* had the latter not lavished his extraordinary talents upon Latin composition.

Of the first negative effects (for so they must be termed) of the reformed faith upon the Irish mind, we have already spoken. Nevertheless, a taste for letters as well as science showed itself among the protestants of Ireland previously to the close of the seventeenth century. The name of Usher † is sufficient to recall a season of high distinction in biblical and antiquarian researches, and of great promise as to the future progress of his countrymen.

The second period of French literature opens with the reign of Francis I.‡ The ancient classics had then become known: printing had been introduced: the middle class, and the useful arts which it is prone to cultivate, had risen to a degree of eminence that was partly due to the policy of Louis XI. To eradicate the barbarism that still lingered in colleges and elsewhere, and to propagate classical learning, were darling aims with the magnificent Francis. After him, Henry IV.,§ who strove, with Sully's assistance, to soothe by every potent anodyne the rankling sores of religious hatred, was the next benefactor to letters. Then were the treasures of the East, in addition to those of Greece and Rome, made familiar to French students; and the modern achievements of other European countries incited and directed their literary ardour. In the succeeding reign, Cardinal Richelieu, of whom it is enough to say that he was the real sovereign of France, courted relief from state-intrigues, or from the weight of the iron sceptre which he wielded, in the prosecution of his early studies and intercourse with men of genius. After a certain period, devoted to Latin and theology, the improvement of the French tongue and poetry became his final and favourite object. For once even the institution of an Academy,‖ on the Della Cruscan plan, was serviceable to so good an end. The French Academy, while it humoured its founder by persecuting Corneille, did at the same time rally the first wits of the day around the standard of taste, and thus ushered in that brilliant era of Louis XIV.,¶ when the glory of great ministers, great generals, and a great master of the art of government, was surpassed by that of the greatest writers to whom France has given birth.

The best evidence of the manner in which the studies patronised by Francis operated, and of the follies with which they had to struggle, may be gathered from the pages of Rabelais.* Little do they know of this consummate genius, who dwell only on his riotous mirth; though none ever loved better than he a joke for the joke's sake, or hunted it down, when started, with more persevering and obstreperous hilarity. Still less do they know of him, who think of his obscenity or absurdity alone, and cannot understand that much of his coarsest filth, and much of his wildest nonsense, are but the cover of bold truths, too dangerous to dispense with such protection. If, like Shakspeare's Edgar, he played the bedlamite, like him it was for a noble cause. They should think also of his vast erudition, of his shrewd satire, of the hard blows he dealt the papacy. Not without a high design was it ordained that Rabelais should be born in the same year with Martin Luther. Observe, too, how eloquent he is, even with so rude an instrument as the French prose of his time afforded. To raise that prose to elegance, without robbing it of simplicity, was a task reserved for Amyot,† the translator of Plutarch. Then Montaigne,‡ by dexterous management, compelled it to express, without formality, the pith of his philosophy. The bombast and affectation of some succeeding writers testify, however, that more of their success was due to the happy talent of these two individuals than to the existing state of the language. But after Richelieu's academy had promulgated its laws, their goodness was exemplified in the purity of Pascal's § style; and in the refined precision, and the moving rhetoric, that flourished together under Louis XIV. What names, among many others, are those of Rochefoucault and Sevigne, of Bourdaloue and Bossuet! What anatomical demonstrations of the human heart! What mirror-like reflections of courts and of the world! Then, too, was the sententiousness of La Bruyere; the ingenuity of Bayle; the amenity of Malebranche; the graciousness of Fenelon!

Who doubts that the poetry of the French, in its fullest bloom, is prodigiously inferior to their prose? Hear Eichhorn upon the characteristics of the former: "French poetry is nothing but agreeable discourse, set off with some becoming finery: and the aim of the French poet is no other than by a nice choice of thoughts and images, by the delicacy of his turns, by a strict observance of propriety in expression, by correct and harmonious versification, to instruct and entertain. He thinks it no part of his duty

* A. D. 1506—1582. † A. D. 1580—1656.
‡ A. D. 1515—1547. § A. D. 1589—1610.
‖ A. D. 1635. ¶ Reigns A. D. 1643—1715.

* A. D. 1483—1553. † Died A. D. 1593.
‡ A. D. 1533—1592. § Died A. D. 1662.

to make deep, sincere feelings speak for themselves: enough for him to describe them! He troubles himself not to exalt the interesting, through the free flight of fancy, to the ideal: enough for him to represent it elegantly! A light, superficial stirring of the senses; an airy play of wit; such is French poetry!" Now this is a true criticism with reference to almost the whole body of French poetry from the date of the old trouvères to the eighteenth century: and why, therefore, encroach on the limited remainder of our essay by minutely tracing its route between these points? The jovial, comical MAROT,* coeval with Rabelais, began the first stage: but the sportiveness which Marot had caught from the Italians, appeared to RONSARD † to require a copious infusion of the antique to give it force and dignity. Hence the pedantry, the excess of Greek and Latin words, the pseudo-classical style, which Ronsard introduced into his abortive epic, and into the works of his six followers, whom with their master the fleeting homage of their own generation hailed as a Pleiad of poets. JODELLE,‡ one of the number, had, however, the merit of bringing copies of the Greek and Roman drama into the French theatre. But it was MALHERBE § that first triumphed over the pomp and pedantry of Ronsard's sect; and, though his odes are no more like lyric poetry than those of other Frenchmen, his style served as an useful pattern till the age of Louis. Then rises, with superior brilliancy, an authentic Pleiad:

Quæ septem dici, Sex tamen esse solent!

CORNEILLE the elder, MOLIERE, LA FONTAINE, RACINE, CORNEILLE the younger, BOILEAU. No one will hesitate as to the respective qualities to be coupled with each name: tragic greatness, sometimes too stiff or too pointed in expression; comic power, always most successful when adapting to modern usages the scenes of Aristophanes or Plautus; a grace, a matchless skill in narrative, so felicitous as to look like instinct; perfect elegance and tenderness; a taste for the romantic and surprising; neat satire conjoined with the love of order and as much knowledge of poetry as one who preferred art to nature could have. The French themselves are most enamoured of their tragedy, and suppose it to be formed on the Greek model. But, after all that the elder Corneille has achieved in *the Cid*, or Racine in his *Athalie*, French tragedy resembles that of the Greeks no more than a petit maître does Ajax or Prometheus.

The sixteenth and seventeenth centuries brought forth few great additions to German literature. The name of LUTHER * is in every sense the first of that period. To strike with the sword of the Word was his high vocation: and therefore he created a national form of speech, to which all dialects have been forced to bow, and a prose style, free from the faults and inconsistencies that had clung to the pens of even Tauler and Albert Durer. Luther found room for poetry also among his original writings; but his capital work was a translation of the Bible, in which he exhibited almost every kind of literary talent, and gave to scriptural expression a wide and wholesome sway over the German language. Passing over Fischart,† the German Rabelais, and Jacob Bœhme,‡ the poetical mystic, observe next the adverse parties of OPITS, of LOHENSTEIN, and of NEUKIRCH, with the proofs they yield that a fierce battle must often be fought, and aberrations to the right hand and the left must occur, before true principles secure the victory. The Silesian Opitz,§ a disciple of the ancients, a master of style and prosody, revealing, in many different species of song, the soul of a heroic poet, held on his way amid the troubles of the thirty years' war, and seemed destined to herald a band of followers happier and greater than himself. But German literature was ever too apt to take its hue from contingent influences. Thus Lohenstein,‖ being himself tainted with the vices of Marino's Italian poetry, had no difficulty in rallying a party to foster affectation and the mock sublime. Their innovations on the vernacular vocabulary were resisted by the strenuous Zesen,¶ and sundry quaintly-named societies: but the artificial vein of composition was most actively opposed by Neukirch,** and some others, who ran into the contrary extreme of utter flatness and insipidity. These intended, with whatever bad success, to imitate the French style; a standard that had naturally obtained a temporary ascendant in Germany after the peace of Westphalia in 1648, and that of Nimeguen in 1678. What further consequences the adoption of that standard gave rise to, and how far they were at last counteracted, will presently be noticed.

III. We must now explain how it was that near the beginning of the eighteenth century,

* A. D. 1496—1544. † A. D. 1524—1585. ‡ A. D. 1582—1573. § A. D. 1556—1628.

* A. D. 1483—1560. † A. D. 1511—1587. ‡ A. D. 1575—1624. § A. D. 1597—1639. ‖ A. D. 1638—1683. ¶ A. D. 1619—1689. ** A. D. 1665—1729.

rom causes that partly preceded it, and partly ained additional force during its progress, a isible change came over the spirit of literature.

The political state of Europe about the year 700 could not fail to affect, in an eminent degree, the character of her mental productions. Britain, Germany, and Holland stood forth as the foremost assertors of liberty, and antagonists of arbitrary power. France, making violent efforts to aggrandise herself, and to blazon despotic principles, was nevertheless sowing in her own bosom the seeds of future revolution. The men were coming into existence who were fated to teach her a new theory: the circumstances were already operating that prepared her people for their lessons. She, too, at last, was to be ranged on the side of freedom. Happy for her, and for the world, had she never overstepped it in her march!

The physical sciences were cultivated with astonishing success; without prejudice to that classical learning, of which NEWTON * would have blushed to be deemed neglectful. In classical learning itself a higher criticism was practised; applied first by BENTLEY,† whose very errors were more fruitful of good than truths in the hands of other men, and carried on by his successors in various parts of Europe. By the vast strides of improvement in these two departments, education was necessarily benefited; and accuracy and polish began to be required in literary works to an extent unknown at former periods. The use of modern tongues in the treatment of scientific subjects especially contributed to increase the clearness and precision of prose composition.

The empirical philosophy of LOCKE,‡ though it led too directly to scepticism, and other diseases of the intellect, and was too feebly opposed by the palliative theories of LEIBNITS,§ served at least to display and to methodize the vigour of the human understanding. Eagerly embraced by the French, in their writings its most pernicious tendencies were manifested. They clothed this philosophy in every conceivable garb of prose and poetry, epistolary correspondence and romance, narrative and declamation. And thus their literature, being filled with a system that flattered the pride and passions of mankind, and recommended by the most winning liveliness and perspicuity of style, usurped an empire wider than their arms had been able to subdue. The revocation of the edict of Nantes ‖ drove Bayle and other able men out of France in different directions: and everywhere they acquired a sway that was not successfully combated by those healthful influences, which have always emanated from the highest order of British genius, until her naval triumphs in the seven years' war * had raised Great Britain to a station of paramount weight with the continental powers.

The fruits of these causes, good and evil, will be seen as we summon before us, for a last review, the principal European nations.

No longer did the sun of ITALY flame in the meridian. Even, however, in the eighteenth century, that country boasts of some writers fit to sustain the singular glory she has gained by being alone equally eminent in ancient and modern literature. The lyrics and blank verse of FRUGONI † are admired on the south of the Alps: the operas of METASTASIO ‡ enjoy universal celebrity. Nothing less would have been adequate to the merits of one, who has uttered the soul of music, in feeling and imagery, by the very breath of music, in versification and expression. Here, moreover, Italian genius is thoroughly original. The operatic poetry, as its laws were fixed by Metastasio, is exclusively Italian. It resembles neither foreign nature, nor nature in the abstract. Under all diversities of costume, it is still one musical voluptuous dream; occupied with neither place, character, nor circumstance, but solely with itself. In other things, the later taste of the Italians has been as dependent as their political condition. First, they endeavoured to supply the defects in their literature complained of by French critics, by building up a regular drama on French interpretations of Aristotle. Corneille, Racine, and Moliere were assumed as infallible guides, in tragedy and comedy, by MARTELLI § and his friends. Thus the dramatic art of Italy, which in Politien's hands, and afterwards in Tasso's, had leaned to the style of Virgil's eclogues; which, in those of Ariosto, had copied Plautus and Terence; which had shone, in the best age, with few gleams of native talent; again copied a pattern, and was not happy in selecting one. The fetters of the French taste were at last loosened by GOLDONI.‖ For, while he drove out of fashion the *comedies of art*, or extemporaneous pieces, which had long been a popular amusement, he yet, instead of aiming at Parisian correctness in composition, rather sought to take up the national humour and careless fluency of

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* A. D. 1642—1727. † A. D. 1661—1742.
‡ A. D. 1632—1704. § A. D. 1646—1716.
‖ A. D. 1685.

* A. D. 1756—1763. † A. D. 1692—1768.
‡ A. D. 1698—1782. § Died A. D. 1727.
‖ A. D. 1707—1792.

the theatrical *improvisatori*, to whose reign he put an end. Gozzi,* on the contrary, who, meaning to use dramatised fairy tales as the medium of satire on Goldoni, was so excited by the success of the chosen vehicle, that he applied himself seriously to adorn it, wrote more in the German than the Italian vein, according to the just remark of Sismondi. On the merits of Alfieri,† the same critic shall pronounce: "He has combined the constructive skill, unity, pureness of design, and verisimilitude, proper to the French theatre, with the sublimity of situations and of characters, and the importance of events, of the Greek theatre, and with the depth of thought and sentiment of the English theatre." Has he not, likewise, almost burlesqued the antique, by an exaggerated imitation of its peculiarities? And, as far as a rage for imitation is concerned, he is not singular among his contemporaries. Some follow the English school; some follow the older writers of Italy itself. "The word *imitate*," says a lively author, "seems to have been invented for this country." Hence even the abilities of Sir John Hobhouse ‡ have not brought into general vogue the respectable names of Cesarotti, Parini, Pindemonte, Monti, Foscolo. Lord Byron, it will be observed, left that task to his illustrator.

In Spain, under the government of the Bourbons, and partly through the patronage of Philip V.,§ there was a certain revival of literature. But unfortunately parties divided; and the educated Spaniards were so much attracted by French glitter, as to turn with disgust from their own literary worthies. The code of this party may be best learned from *the poetics* of de Luzan;‖ one of the many who have read Aristotle by the help of Parisian spectacles. Meanwhile the people remained steadfast to what they supposed to be the national standard, and long applauded, on the stage, the copiers, or rather caricaturists of Calderon. And, after the middle of the eighteenth century was past, a few remarkable men came back to the true Spanish taste, as far as the change of Spanish manners had left it unaltered. De l'Isla ¶ wrote a comic romance, on the plan of Cervantes, to ridicule the monkish preachers. La Huerta ** tried to emulate the old drama of Spain, with due deference to more recent principles, wherever he thought them reasonable. Yriarte,†† the first good fabulist of his country, exhibits the mingled graces of the ancient Castilian redondillas and of La Fontaine. Valdes,* a lyric poet, whom Bouterwek † deems worthy of the best times of Spanish literature, has imbibed a small portion of the English spirit. Should this tendency become general among intellectual Spaniards, it would offer the fairest chance of the complete retrieval of their literary greatness.

At the death of Louis XIV. the powers of the French tongue had been unfolded to their full extent; immense progress had been made by Frenchmen in most branches of learning; light had begun to radiate from the capital through the provinces; and academies and periodical journals were diffusing education and a passion for reading over the whole land. An universal command of language, displayed most strikingly in the abundance of memoirs which have been composed by persons of all conditions, with nearly equal facility and elegance, thus became characteristic of the natives of France, and contributed to the establishment of their literary despotism. Yet, even while that despotism prevailed abroad, France was subject to changes at home. Between 1715 and the present day she has known three eras in her literature: an era of imitation of models exclusively French; an era of aspirations after nature; and a revolutionary era. During the first, the usual course of imitators was pursued—a futile effort to outdo their masters in vigour or in refinement. Hence the exaggerated manner of the tragic Crebillon,‡ and the antithetic point of Fontenelle.§ Nature, true wit, and the charms of style reappeared, when Le Sage ‖ gave his delightful fictions to the world: and, somewhat later, the highest enchantments of French prose were once more showered from the pens of Voltaire,¶ Buffon, and Rousseau. The taste of Voltaire was just and manly; his wit ever sparkling; his fecundity prodigious. History and romance; criticism and metaphysics; tragedy and comedy; epic poetry and lyric poetry; nothing came amiss to this versatile genius: and, though his poetry is much below his prose, he did not study in vain those great poets of England whom, with his usual dishonesty, he affected to cry down. The author of *Zaire* and of *Alzire* cannot be said to have read Shakspeare to no purpose. Buffon loved nature too well, he had drawn from her too deep draughts of beauty and sublimity, not to vie with her in the profuse magnificence and

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* A. D. 1760. † A. D. 1749—1803.
‡ Illustrations of Childe Harold, &c. § A. D. 1700—1746.
‖ A. D. 1737. ¶ A. D. 1758.
** A. D. 1778. †† A. D. 1782.

* A. D. 1786. † Geschichte der Poesie und Beredsamkeit
‡ A. D. 1674—1762. § A. D. 1657—175[illegible].
‖ A. D. 1677—1747. ¶ Voltaire A. D. 169[illegible]—177[illegible].
Buffon 1707—1780: Rousseau 1712—1778.

of his descriptions: and the name of Jean ques Rousseau sounds like another term for mingled eloquence of sentiment and passion. w loftily do these writers soar above French matism in the theory of the fine arts, even as xisted in their day, and was partly counte- aced by Voltaire himself! But how deadly, verything except style, were the antichristian histries of the first, the sceptical opinions of second, and the self-willed reveries of the rd! In co-operation with the degrading terialism of HELVETIUS,* their tendency was blot God's word out of the memory of man, d God's image out of his soul. Then came e devilish enginery of the ENCYCLOPEDIA, con- ected by DIDEROT † and D'ALEMBERT, whose inciple was atheism. The people, with whom a ork like this could find acceptance, was already ripe for the great Revolution; ‡ an event still too fruitful of ominous forebodings, as well as recollections, to be touched on here, were it not for the congenial character which it has impressed upon the workings of the French mind. Its commencement was accompanied by some bursts of grandeur, such as broke from the lips of MIRABEAU.§ But soon was everything noble and refined borne down by a rage for destruction, which, at the moment when these lines are being traced, seems again to infuriate the base, the gross, and the ignorant in the community around us. And from that anarchy of all the social elements, which the Revolution brought on France, what literary monsters have emerged! If much of the rankness of that period clings even to the rhetoric of DE STAEL and the fancy of CHATEAUBRIAND, what shall we say to the hideous spawn of such a brain as VICTOR HUGO's, or to the systematic profligacy of such a dramatist as DUMAS? Some of this class, in their plays and romances, dream that they are treading in the footsteps of Shakspeare and Walter Scott. They had better resort, as Schlegel counsels, to models which they would have some chance of comprehending; namely, the old spirit and poetry of their own nation. The French historians of the present day have done this; and no one will deny that THIERRY, THIERS, and a few others, have done it with eminent success.

We must take up the GERMANS where we left them, under the encroaching influence of their French neighbours. By them they were inoculated with that poison of infidel prejudices which, notwithstanding the opposition of some great minds, has since circulated together with the life-blood of German philosophy and literature. The effects of scepticism in Germany have differed from those observable in France, only because it did not encounter, in the former country, either the tiger-element or the monkey-element, so conspicuous in the French character. But they have been sufficiently apparent in criticism, in metaphysics, and in all things liable to be worked upon by those modes of intellectual exertion. Under a wiser limitation of this sceptical tendency, German criticism might have been the parent of unmingled good; especially by the learning and genius it has brought to bear on classical subjects; greatly improving, we must confess, on the English critics of the last generation, and acting very favourably on those of the present, who, like Mitchell, Milman, Nelson Coleridge, and other ripe and eloquent scholars, have made such subjects popular. Under the same limitation, it would not have been so often necessary to say of the German metaphysicians, that in straining after new ideas they have lighted only on new words; a fault which in their English worshippers degenerates into the most nauseous coxcombry: or that they have been lured, by specious phantoms, far away from the regions of faith and truth, into abysses of error,

> "Where in the lowest deep, a lower deep,
> Still threatening to devour them, opens wide."

In France, literature takes much of its complexion from polite society; in England, from active life and politics; in Germany, where there is no political life, from mere speculation. Whatever the Germans borrow from other races, they are sure, in the end, to dye with the hues of their own philosophy. For example, the famous parties of GOTTSCHED * and BODMER,† who divided the literary world of Germany during the first portion of the eighteenth century, while the one inclined to French theories, and the other to classical principles, as interpreted by the British school, had enough of native industry, earnestness, and quaintness about them, to show the peculiar bent of the German mind, and to facilitate its further development.

Bodmer and his partisans had espoused critical tenets really most akin to the disposition of their countrymen. The erudite and thoughtful poet HALLER ‡ sided with them: so did the pure, simple, virtuous GELLERT,§ penitently declaring,

* A. D. 1715—1771
† Diderot died A. D. 1784; D'Alembert A. D. 1783.
‡ A. D. 1789. § Died A. D. 1791.

* A. D. 1700—1766. † A. D. 1698—1783.
‡ A. D. 1708—1777. § A. D. 1715—1769.

"there was a time when I would have given anything to be praised by Gottsched; and, half a year afterwards, I would have given anything to be excused his praise." But a greater than these, the greatest perhaps of all German poets, also allied himself with Bodmer. It was under his banner that KLOPSTOCK* appeared, when he gave vent, in song, to the ruling passions of his heart, the love of God, the love of his friends, and the love of his father-land. What could Frederick of Prussia, with all his French associates, and all the sneers they taught him to indulge in at German literature, expect to do against the sacred inspiration, the indignant patriotism, of such a writer as the bard of the *Messiah?*

From Klopstock the Germans date the finest bloom of their poetry. The judgment, wit, and fire of LESSING† (for all these qualities meet in his divers works) caused many of its blossoms to expand. French taste, however, had a last chance of gaining the mastery, when mixed up with the manifold witcheries of WIELAND.‡ For her ultimate preservation from this danger, Germany is more indebted to the study of Shakspeare than to any other outward influence.

Yet Wieland must always be cited as one of the foremost German authors. In short, a whole galaxy of bright stars must be passed over, in order to give due prominence to him, to SCHILLER,§ and to GOETHE.‖

Looking to his romantic poetry, Schlegel says of Wieland: "He might have become the German Ariosto, but stooped to be the imitator of such a prose writer as the novelist Crebillon." Looking more narrowly at his prose romances, we would add: He might have been a Greek of Athens, had he not been so much a Greek of Paris.

Schiller, as a dramatist, the only light in which to view him justly, had a more catholic spirit than either of the other two. In him we behold a mind ever strengthening as he advanced in life, and struggling on to greater heights of excellence. As a youth, he was wild and visionary: a Hercules, whose choice was not yet made. But the full-grown Schiller we would sometimes place at the feet of Shakspeare; sometimes at those of the Greek tragedians.

Goethe is a German of the Germans: a genius in whom heaven and gross earth, the high ideal and the low actual, succeed one another by the most abrupt transitions. How much must one know of Germany, and of its people, to understand the *Faust!* Without such knowledge, translations and expositions of that marvellous poem only bewilder the reader.

When the Germans talk of their prose as being yet imperfect, they seem to forget Goethe's *William Meister*. In point of style that book is faultless. Eichhorn,* indeed, from whom every labourer in literary history may derive assistance, affirms, on this head, merely that "the time is probably distant when German literature will be enriched by tasteful prose works *of large compass:*" and that "classic prose is *more rare* than classic verse in Germany."

For the strait bounds within which we must now compress all that it would be delightful to write on the latest period of BRITISH letters, there is a double consolation. In the first place, the legislative union of England and Scotland, in 1706, so amalgamated the two countries that many of their chief differences in feeling and taste were at an end; and though Ireland was not taken into the same close connexion until 1801, the great stage whereon Irish literary talent has shown itself, during the last hundred and thirty years, has been on this side of the channel. In the second place, the few names we can afford to cite tell their own story. Accordingly it will not be necessary to array the English writers apart from the Scotch and Irish. Nor will it be necessary to describe at large those who may be mentioned. On the one hand, we need not make a comparative estimate of genius to suit the divisions of geography: Addison, Bolingbroke, Pope, Fielding, Cowper, Gibbon, Byron, of the south; against Thomson, Hume, Smollett, Robertson, Burns, Mackenzie, Scott, of the north; or against Steele, Swift, Parnell, Sterne, Goldsmith, Burke, Moore, of the west. On the other hand, every one knows what these men are most famous for. It is one of the greatest distinctions of modern literature, when contrasted with ancient, that some modern authors have shone both in prose and poetry. This is true of Swift, Addison, Pope, Johnson, Goldsmith, Byron, Scott, Southey, and many more. But who needs to be told that Pope and Byron are most eminent as poets; that Addison, Swift, and Johnson are most happy in prose; that Goldsmith, Scott, and Southey write in either style with so much ease and power as to hold the judgment in suspense with regard to their main excellence. They always seem to have done best what we have last read from their pens.

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* A. D. 1724—1803. † A. D. 1729—1781.
‡ A. D. 1733—1813. § A. D. 1759—1805.
‖ A. D. 1749—1833.

* Geschichte, &c., IV., 1094.

Should any one urge, in opposition to some things said above, that even in the eighteenth century the authors of England, Scotland, and Ireland have strong national features, and ought therefore to be kept asunder; we reply, that all their differences, proceeding from the superiority in classical scholarship of England, the metaphysical subtlety of Scotland, and the overflowing fancy of Ireland, are nothing to their points of likeness, proceeding from many powerful causes. Language has been one great assimilator. The authors of this period, with few exceptions, have written English; varying, indeed, between the Saxon and other elements of the tongue; and more or less idiomatic; but for the most part pure, unprovincial English. The increase of knowledge has been another assimilator. Literary men have been forced to accumulate knowledge of all kinds, and to write up to the demands of a knowing public. The details of fiction are more scrupulously accurate, in our days, than those of history once were. Thirdly, political causes have aided in the work of assimilation. On the whole, the inhabitants of England, Scotland, and Ireland have shared the constitutional advantages secured by the fathers of the Revolution. Happy and wise people, if they abide by the principles of those great men, and by the objects from which such principles derive their incalculable value! Freedom of the press, the free profession of religious opinions, the free course of public justice, these are the mainsprings of our social existence; and the efficacy of these has been nearly equal in the three countries. It has been altogether equal, as far as the state of letters is concerned.

The best way, then, of classing the authors of this last period is by generations. One generation ends with Goldsmith. The second ends with Cowper. The third consists of our own contemporaries.

Queen Anne died early in the first generation. But it may take its name, as it took its tone, from the assemblage of wits that were in maturity during her reign. These were true Britons, in diction as in everything else. They taught France a great deal: they learned from her little except a clear and concise structure of sentences in prose. In other matters they followed up what Dryden had begun.

What a thorough master of idiomatic prose was Swift! * Defoe † narrates as well as he: Cobbett, in the present day, has passages of finer eloquence than Swift could reach. But though both of these writers equal him in raciness of language, Swift surpasses them both in variety and learning. Even, however, from the strength of Swift, and the sprightliness of Bolingbroke,* we turn with pleasure to the sober elegance of Addison.† His style is like green among the colours. We could rest on it for ever. It never dazzles: it never wearies.

Swift's poetry is his prose versified; unequal, therefore, in poetical merit, to the effusions of Gay, Young, Pope, Thomson, and Gray. Theirs is the poetry of art; but not on that account the less beautiful. We may laugh at the silly question whether Pope,‡ the greatest of the series, were a poet. If you ask what he was as to invention, read the *Rape of the Lock*: what he was as to passion, read *Eloisa's letter*, and the *Elegy on an unfortunate lady*. Besides, he is as original as many other great poets. If his mind took in foundling-thoughts from all quarters, it dressed them up in a livery of its own.

Nevertheless, in creative genius, Pope and his brethren gave place to the novelists, Richardson, Fielding, Sterne, and Smollett. Richardson § too often paints the impossible in character; but he is unrivalled in the elaborateness of his representation. Fielding's || *Tom Jones* is the epic of romances. Sterne,¶ though he could not equal Fielding in fluent wit, is a paragon of lucky quaintness; and, in pathos, is approached by Mackenzie alone. Life is no longer picturesque enough to produce a match for Smollett ** in descriptive humour. Goldsmith,†† too, who belongs by style to this first generation, would be immortal as a novelist, had he not so many more claims to immortality—a poet more simple and touching than Pope ever was; a prose writer more vigorous than Addison ever could have been.

If the second generation were to be estimated by Johnson ‡‡ and Gibbon,§§ it might justly be condemned for Latinized expression, and a pompous fashion of adorning common-places. But with their monotonous, though sounding rhetoric, we must contrast the spotless style of Hume ;|||| and, somewhat later, the lively rhythm of Paley.¶¶ Robertson *** is a fine writer; who does not feel at home with his pen.

The literature of modern oratory has no name so lofty as that of Burke,††† though from the want of wealth or high alliances he never led a fac-

* A. D. 1667—1745.
† A. D. 1663—1731.
* A. D. 1672—1751.
† A. D. 1672—1719.
‡ A. D. 1688—1744.
§ A. D. 1689—1761
|| A. D. 1707—1754.
¶ A. D. 1713—1768.
** A. D. 1720—1771.
†† A. D. 1731—1774.
‡‡ A. D. 1709—1784.
§§ A. D. 1737—1794.
|||| A. D. 1711—1776.
¶¶ A. D. 1743—1805.
*** A. D. 1721—1793.
††† A. D. 1730—1797.

tion, and from the mixed nature of a parliamentary audience he was not always an effective speaker. The largeness of his political views is of itself enough to preserve that name from degenerating into a party-toast: and the opulence of Burke's style is so vast, that it would hardly seem enhanced were we to make out his title to the letters of JUNIUS.

High finish in the execution of literary designs is a characteristic common to both the generations through which we have hurried. The low ebb of poetical genius, in the second, might be inferred from the temporary popularity of DARWIN.* COWPER† and BURNS‡ supply the two exceptions to this inference. The fervid piety of the one, the fervid passions of the other, gave wings to their poetry. And, even after Dunbar and Allan Ramsay, Burns disclosed new powers in the Scottish dialect.

For any dearth of poetry in the preceding generation, full amends have been made by the present. If we marshall SCOTT, BYRON, MOORE, CRABBE, CAMPBELL, WORDSWORTH, SOUTHEY, COLERIDGE, MONTGOMERY, in the foremost rank, a multitude of not ignoble crests may be seen waving behind them. Some of those here mentioned are great poets without having written great poems. But this is not true of WALTER SCOTT. Granting that his novels may be included in the conception of his poetical character, he rises to the level of Homer,

"And rivals all but Shakspeare's name below!"

In prose composition British writers seem to be now gathering their breath, and proving their arms, for future efforts. Meanwhile they succeed best in biography and criticism. The first place is due, perhaps, to those periodical works which owe their form, and much of their spirit, to the great abilities of JEFFREY, GIFFORD, and WILSON.

Our prescribed limits are transgressed ere we have cast a glance at the literary productions of Holland, Denmark, Sweden, or the Sclavonic countries. We cannot afford a single line even to the growing literature of NORTH AMERICA. Within the bosom of that vast continent there is no lack of talent sufficient to use, to noble purpose, the resources of a new and unexhausted scene. But before America can hope to produce literary works of the highest order, she must learn two lessons: to substitute real freedom of thought for democratic violence: and to honour genius and wisdom above riches.

* A. D. 1732—1802. † A. D. 1731—1800.
‡ A. D. 1750—1796.

THE END.

ginality of genius; they were Lessing, Klopstock, d Wieland. G. F. Lessing (born 1729, died 1781), th his clear, classical understanding, exposed eign and native absurdities in taste, and exhibited, his own productions, an example of the manner in ich original thoughts adopt appropriate forms, thout imitation of any kind. He is the founder of e national German drama, and of German criticism. G. Klopstock was taught by the ancients, that ere is no true poetry without patriotism and reli-on; the former he derived from the German history early times; with the latter he was inspired by the liest and highest conceptions of Christianity, which oduced his *Messias*. He also used the perfect me-ical forms of the ancients, and imparted to his na-ve language a high degree of dignity and correct-ess. Christian M. Wieland (born 1733, died 1812), n imitator neither of the Attic style, nor of the rench taste, called to his aid the genius of grace, hich inspires the former, and the natural facility hich prevails in the latter, to give effect to the reations of his own rich and inexhaustible imagina-ion. His muse, though often sensual, often verbose, is full of natural grace and warm feeling. He con-tributed a great deal to give to the German language a greater pliability and ease. The introduction of Shakspeare into Germany could not but produce a decisive influence, after the revival of a taste for the earlier German poetry and the old English ballads. The growing romantic tendency manifested itself in many poets of the *Gottingen-Union*, as it was called, in the ballads of Burger, the elegies of Holty, and in the poems of the counts of Stolberg. The latter, however, showed the influences of Homer and the Greek tragedians. Their friend Voss (born 1751) was unfortunate enough to forget, in his love for the ancient classical poetry, that its chief merit consists in its living spirit, and accommodation to the charac-ter of their times; but his translations of Homer im-proved the metre and displayed the richness of the German language, and his idyllic poetry, though often unnatural in its Greek dress, is not wanting in dignity and beauty. Herder, Schiller, and Goethe, next ap-pear on the German Parnassus. Herder's romantic poetry was drawn from every time and nation. Wit-ness his translation of Balde, his Cid, his Voices of the Nations, his Legends, as well as the poetry in his critical and other works. Schiller followed the ideas of Klopstock, but he gave them shape and body. His inspiration, instead of pervading the distant heavens, and representing the conversations of God and the seraphs, exhibited the struggle of human virtue and human will with life and fate. His ideals are as holy and elevated as Klopstock's, but they appear clothed in reality and truth. It has been objected to him that the poetical is too often lost in the philosophical. In German tragedy, his dramati-cal works are undoubtedly the first. In comparing Goethe with Wieland, we hardly find any other points of resemblance than their grace and fulness, their liveliness and ease; but, in Wieland, this appears to be owing principally to the happy temper of the poet, and his continual study of Greek and French models, while, in Goethe, it is owing to the strength with which his bold and penetrating spirit pervades the unlimited variety of nature and the hidden recesses of the human heart; to the harmony with which his rich and refined feeling echoes every voice, every movement of the living world, and finds, in his bright and abundant imagination, the means of the most simple and striking representation. One thing, how-ever, is wanting in Goethe's productions. He does not set forth strongly the moral dignity of man, the power with which his spirit opposes the accidents of life. The varied play of human passion he portrays in a masterly manner. With these great names, the age has produced many other poets, of whom we will mention only the most eminent, or those who had at least their period of distinction. Matthison charmed by his tender pictures of nature. The poetry of Salis was more vigorous. Tiedge is known by his *Urania*, in six cantos; A. Schlegel, by his excellent translations of Shakspeare, and Calderon, and many original pieces of much merit; Claudius, by his popular songs and religious hymns. Of the humour, wit, genius, and virtue of Jean Paul Frie-derich Richter, Mensel says rightly, "No one had so much power to do ill, and no one was in fact so pious and childlike." Ludwig Tieck possesses poet-ical resources hardly inferior to Goethe's; and his productions, moreover, are distinguished for virtue and purity as well as for poetical spirit. He is, moreover, one of the most learned commentators on Shakspeare. Novalis, to whom the world was one great poem, wrote sacred hymns of the most intense feeling and the highest spirit. Ernest Schulze, at an early age, was the author of two romantic epic poems, the Enchanted Rose and Cecilia. Full of the spirit of the war of independence, in which he lived and died, was the patriotic Theodore Korner, so cele-brated for his war songs and his tragedies, which breathe the spirit of Schiller, as well as for his chiv-alrous death. (See *Korner*.) Max. von Schenkendorf was, like him, a patriotic and productive poet; Frie-derich Ruckert, a poet of the most refined and abun-dant imagination; Ludwig Uhland, a genius deep, rich, and unassuming: his poems breathe the true spirit of romance. He endeavoured to make German tragedy more national. Among the romantic modern poets is also distinguished Gustavus Schwab. Gries and Streckfuss have become celebrated as translators of Tasso and Dante. As dramatic poets, we may mention, besides those already named, Werner and Mullner, Grillparser, Houwald, Auffenberg, Klinge-mann, Raupach, Immerman; in comedies and operas, Mahlmann, Von Maltitz, Ohlenschlager (a Dane), Weissenthurn, Steigentesch, Schmidt, Heinrich von Kleist, Schutz. The dramatical muse of Kotzebue was fertile, but without dignity, and frequently with-out good morals. Iffland was the author of numerous family pieces. Whether the Germans have a national theatre has been doubted by many even among them-selves. It seems, indeed, that, notwithstanding the many excellent dramatic works which they have pro-duced, the difference in their form and spirit indicates a deficiency in the causes which should give the stamp of nationality to the productions of the German theatre. That community of feeling and spirit in a nation, which are necessary to give a strongly marked character of individuality to its drama, are difficult to be found amid the political division of the present time. The sources of common interest must be looked for in the earlier history of Germany, under the em-perors, and in the middle ages. But the attempts which have been made by Uhland and others are too few and too recent to enable us to judge of the pros-pect of their success. A few words remain to be said on the sacred poetry of the Germans. During all the aberrations and changes of taste in the other branches of poetry, this one has retained its dignity, except, perhaps, in the controversial period of the Protestant church succeeding the reformation, when doctrinal distinctions formed the subject of a great number of hymns. After the Catholic poetry of the middle ages, which was written mostly in Latin verse, but often presented the most beautiful exhibi-tions of devout feeling, the later sacred poetry begins with the vigorous and pious accents of Luther. Paul Gerhard (1607—1676) produced hymns full of feeling and deep piety. Erdmann Neuermeister in the mid-

dle of the eighteenth century, Klopstock, Lavater, Gellert, Schubart, Cramer, Claudius Niemeyer, Herder, form a series of sacred poets. Besides these, there is a large number of others, particularly in the first period of Protestantism. In the first part of the eighteenth century, there were more than 33,000 hymns in the German language, by more than 500 authors. The essence of deep religious inspiration seems to breathe in the religious poems of Novalis.

German Criticism. German literature is truly the child of the nation. Their political and civil constitution was given to the Germans by their princes and the events of history; their spiritual life they created themselves. A literary court of justice, universally acknowledged as the *académie Française* in France, was inconsistent with the numerous political divisions of Germany. No standard of fashion, no courtly rules, ever held dominion over their literature, and limited the authors to certain favourite forms and manners; and even the universities exerted no domineering influence. From the time of Opitz (q. v.), the poets poured forth their strains in the most various styles; and without being called to account for their irregularity. Exterior influences were required to produce controversy and party spirit. Till then, only frivolous Italian writers, belonging to the end of the sixteenth and the beginning of the seventeenth century, were studied and imitated; and from the French literature, with a strange neglect of the first classics, only some worthless novels and poems were selected as models, and even the Dutch imitators of the French were made use of for the same purpose. Besides this, no notice was taken of foreign literature. Almost a century elapsed after Opitz, before a comparison of the existing state of the German literature with the foreign, gave life to German criticism. Bodmer and Breitinger, two Swiss literati, published, in 1721, the Discourses of the Painters, and endeavoured, by the exposition of views drawn from the study of Milton's Paradise Lost, to raise the standard of German poetry. Attending more to the substance than to the form, they proceeded in their investigations with as much penetration as impartiality. Professor Gottsched, in Leipsic, inclined towards the French literature, and endeavoured to establish, as a chief rule for German literature, that it should be made intelligible to every body by a certain easy, conversational tone of writing. But whilst he strove, with this view, to promote the purity and fluency of the language, and ease of versification, he overlooked the more important subject of the spirit of the literature, and misunderstood the character and the wants of his nation. While Gottsched was thus sinking into insipidity, the Swiss were running into scholastic subtilties; and yet German literature owes a new life, and German criticism owes its foundation, to the disputes between these two parties. The weighty and vigorous ideas in the poems of Haller, and the *Messias* of Klopstock, produced a powerful excitement (1748). If the results of their contentions were not very visible at the moment, yet they prepared the minds of their countrymen for independent judgment, and awakened them from the torpor in which the rules of Baumgarten and Batteux and Du Bos would have left them. Shortly after, Lessing came forth, one of the greatest critics Germany ever possessed. Without predilection for any nation, and appreciating all, free from prejudices and the fear of men, his honest and profound spirit of investigation strove only for truth; and he united with comprehensive learning, a penetrating and clear judgment, a refined and a striking conciseness in expressing the results, so that he may be considered, at the same time, as the founder of German criticism, and as an excellent model for imitation by critical writers. His own original productions aided the effect of his critical rules. At the same time, the bookseller Nicolai, in Berlin, contributed to the success of his labours, by the establishment of several critical journals. Herder commenced with striking originality and elevation of ideas in his *Kritischen Waldern* (Critical Woods, 1769), he permitted himself to be limited by no conventional rule, but his luminous understanding was often overwhelmed by his fiery imagination, and his criticism was not seldom deficient in clearness and precision. The Elements of Criticism, by lord Kames, was not without influence, at this time, on the critical taste of Germany. It was translated into German by Meinhard. Most of the champions of German criticism of this period contended against the French taste; but Wieland, by his *Deutschen Mercur*, gave it currency again, without intending to restore its former authority. Wieland had cultivated his mind too comprehensively and profoundly, and was too familiar with the ancient and modern literature of the most refined nations, to attempt the introduction of any part of the French literature, but what was of a general application, and had a certain relation with the character of German literature. And to this influence it is partly to be attributed, that German criticism, with undiminished life and profoundness, acquired a more varied and general character, and a tone of mild and refined dignity, which manifested itself particularly in the *Allgemeine Literaturzeitung* of Jena, founded in 1785. Kant's *Kritik der Urtheilskraft* (Criticism of the Power of Judgment, 1791) maintained that the judgment of correct taste is independent of excitement and emotion. This principle was acknowledged by Schiller, in his *Reich der Formen* (Kingdom of Forms), but the adherents of the new school did not harmonise in their systems of æsthetics, and the nation, which, in general, in matters of feeling, had never accepted of laws from any school, was not influenced by the new principles. The original Herder, in his *Kalligone*, violently opposed the new doctrine. Schiller's unjust criticism of the poetry of Burger showed to what the principles of Kant must lead. A spirit of fresh and glowing feeling, opposed to the prosaic views of Kant, and connected with a keenness and bold impartiality, which called back the memory of Lessing, was manifested in the *Athenæum* of the brothers Schlegel, in which deep reflection was united with a keen sense of the beautiful. Their intimate union with Tieck, Bernhardi, Novalis, and other kindred spirits, has had an important influence on German criticism. The deep glance which they cast into the middle ages gave them a romantic and even mystical tendency, which found many friends and a new support in the system of Schelling, but has also had its opponents. Among the latter, Kotzebue, by his periodical publication *Der Freimuthige*, made himself most known; and, in a more dignified way, Bouterwek, in his History of Poetry and Eloquence.

German Philosophy. See *Philosophy*.

German School of Art. The war songs which Tacitus mentions, the armorial bearings on the escutcheons, the early romantic poetry, and the mythology of the Edda, display the early taste of the German nation for poetry and the fine arts. Soon after the introduction of Christianity, art began to extend beyond the mere decorations of weapons, and appears first in churches and monasteries. Here music was first cultivated. Architecture was elevated above the mere purposes of shelter, and Gothic arches and spires towered towards heaven. Poetry was cherished by the monks, who preserved the remains of their heathen ancestors, and made imitations of the Roman and Greek classics. On the miniature ores

als of their manuscripts, and on the altar-pieces their churches, painting (*see the next division*) al her first rude but inspired traces. It is uncer- n how much the early Saxon castles were affected the Byzantine modification of the Greek and Ro- n architecture, and the ornaments of later periods. ls certain that this bold and living, though often omy and severe, style has nowhere else reached e perfection which it attained in the German coun- es. German painting sprang from the imitation the Byzantine pictures of saints, but soon rose ove the lifeless and dry diligence of that school. om the thirteenth to the fifteenth century was the lden age of German architecture. The German hool of painting flourished almost as early, chiefly the Rhine and in Suabia. The greatest painters, merous and skilful founders, carvers in wood, ood-engravers, and probably the earliest engravers copper, and etchers, lived in the fifteenth century, articularly in the south of Germany. The inven- on of the art of engraving on copper with the burin, ascribed to a goldsmith in Upper Germany, who ived 1460, and that of etching to Michael Wohlge- muth, 1434—1519; but neither opinion is sufficiently established. At this period, Germany displayed a gre- at number of Gothic cathedrals, rising from the mi- dst of dark and narrow buildings, the extent and grandeur of which are visible in the cathedrals of Cologne, Strasburg, Vienna, and many other places, wh- ose altars are ornamented with the works of Van Ey- k and Albert Durer, and the gloomy majesty of wh- ose aisles received a dim light through the colours of beautiful glass paintings. Sculpture, though less fa- voured by Christianity, produced works like the se- pulchre of St Sebastian in Nuremberg, and the numerous beautiful representations of the holy sepul- chre. The castles contained drinking horns, fine ca- rvings on the walls, and other curious and rare works, elaborately finished. The houses of the free and wealthy citizens of the Hanseatic or Suabian league, were often richer in works of art than in means of comfort. The monasteries were filled with productions of art of every kind. The religious troubles in the sixteenth century put an end to this flourishing period, and, as the German school of art was entirely religious, prevented its farther deve- lopment. The art of engraving and cutting in wood survived almost alone; in general, extravagance of ornament usurped the place of beauty. After the storms of the thirty years' war, by which the division of the nation was widened, the Protestant states of Germany were distinguished by the cultivation of learning, particularly of the Latin language, which checked, for a long time, the development of a na- tional character; but the German character was more injuriously affected by the imitation of the French, in the second half of the seventeenth cen- tury. The academies of art, instituted on the model of the French, could effect little for the creation of a national taste. The galleries of pictures, which were then founded, first awakened the interest of the learned. Lessing, Winckelmann, and Mengs had a decisive influence on the direction of German taste, and excited the enthusiasm of amateurs and artists for classic antiquity. Heyne's archæological inves- tigations had a similar influence. This enthusiasm became extravagant, and seduced the artists from the imitation of nature, to an excessive imitation of ancient models, under the alluring title of the *beau ideal* of the Greek form. The events of the times, and the patriotic spirit of Goethe, Schiller, and Her- der, subsequently awakened a zeal for German anti- quity, particularly for the religious period of the middle ages. Wackenroder's *Herzensergiessungen eines kunstliebenden Klosterbruders* (1797), the ro- mantic writings of Tieck and Novalis, the criticisms of the Schlegels, the revival of the *Nibelungenlied*, and the collection of the finest old pictures by the brothers Boisserée and others, turned the attention of the young artists towards the romantic. From the beginning of the present century, the German pain- ters in Rome have manifested a tendency to religious and historical subjects in the manner of the old Ger- man and the kindred Italian school. Against this tendency many Hellenists, among whom is Goethe, have raised their voice, forgetting that the art of a country must take root in its native soil, before it can attain a natural and vigorous growth. Among the German painters in Rome, who endeavour to unite the spirit of the old religious schools with the classical perfection of form, is Peter Cornelius, of Dusseldorf (see *Cornelius*; also *Cartoon*, and *German School of Painting*). This change has not been con- fined to painting, though modern art seems to prefer the expression of its religious, romantic spirit by light and colours, whilst the ancients preferred the perfect form of the body. German sculpture was, therefore, chiefly confined, in elder times, to subjects taken from sacred pictures, and, in recent times, has devoted itself principally to imitations of the antique style, and, in this manner, the most excellent works have been produced. The art of engraving was naturally the companion of painting, through all its changes of style. (See *Engraving*.) The principal seats of art in Germany are, Vienna, Munich, Dres- den, Berlin, each of which has an academy of art.

German School of Painting. With the decline of the Eastern empire, Byzantine art and science were spread over Europe. In Germany as well as in Italy, and particularly on the Rhine, the gloomy, dry style of the Byzantine school prevailed. Many pictures of this early period have been preserved; they are distinguished by a gold ground and orna- mented glories made of silver, shaded with brown; their colours are bright, without harmony, and with- out life; their outlines are delicate. In Austria, the abbot Reginbald, founder of the monastery of Murr, awakened a taste for the arts about 900. He was followed by St Thiemo, at Saltsburg, and, in particu- lar, by Gisela, the wife of St Stephen of Hungary. Louis the Debonnaire received costly works of art as presents from the Byzantine emperor. The Sile- sian and Moravian princes kept up a friendly con- nexion with the Greek emperors. St Methodius, the missionary to the Sclavonians (863), is mentioned as a distinguished painter; and the first Silesian bishops who came from Italy, made use of sacred pictures for spreading their religion. In the churches of St Elisa- beth and of St Barbara, at Breslau, there are some re- markable pictures of this period. The church of St Bernardine contains the Hedwig's Table, upon which events in the life of St Hedwig are painted, in thirty- two compartments. In Bavaria, Theodore II. endea- voured to propagate Christianity by the instrumenta- lity of St Rupert, whom he called from Worms (696); and here also the introduction of painting followed that of Christianity. The arts were most zealously culti- vated in the monasteries of the Benedictines. Alfred and Ariram, the latter a monk of St Emmeran, were the most distinguished Bavarian artists of this time. In Franconia, we find the first traces of art in the time of St Bruno, who (1042) rebuilt the cathedral at Wurtsburg. The emperor Henry II. and his queen, St Cunigund, were patrons of the arts. In the mon- astery of Heilsbronn, there are several paintings of the time of St Otho, bishop of Bamberg, who died 1139. Nuremberg deserves to be mentioned as a place where painting and carving in wood were early carried to a high degree of perfection. The churches of the Virgin Mary and St Sebaldus contain

some very old pictures. In Suabia, the monastery of Hirschau was early celebrated for its treasures of art. Many monasteries and churches contained manuscripts with excellent miniatures. In Augsburg, Ulm, Nordlingen, there were skilful artists at a very early period. From the time of Charlemagne, many branches of art were practised in the cities on the Upper Rhine. Ments, Treves, and particularly Cologne, were the most distinguished seats of German art at that time. The period from 1153 to 1330 was not less decisive for German art than for German poetry and language. The eldest German school of painters, which far surpassed the later school of Nuremberg in purity of style, depth of expression, and quiet loveliness, flourished at Cologne, in this period. Their pictures are generally on wood, which was first covered with a layer of chalk, and then with linen, upon which were laid another ground of chalk and bole, and, lastly, a gold ground. They preserve their colours with a remarkable freshness. The most celebrated of these works is the altar-piece in the cathedral of Cologne, which some ascribed to William of Cologne, others to Peter Calf. The collections of Wallraf, Boisserée (q. v.), and Bettendorf contain the finest specimens of this period. In Frankfort, the painters on glass were distinguished. The most poetical of the old German masters, Hemmelink, whose works are full of boldness and fire, lived in this period. The builder of the Wartburg, count Louis II., was a patron of the arts in Hesse and Thuringia. The old church of St Elizabeth, at Marburg, contains many early monuments. Henry I. protected the arts in Saxony. There were distinguished artists in the abbeys of Corvey, Minden, Hildesheim, and Osnabruck, in Lower Saxony and Westphalia. The number of the monuments of art, from this early time, is incredible. They are found everywhere in Germany, not only in altar-pieces in the churches and monasteries, but also in elegantly ornamented manuscripts, in chasubles embroidered by the nuns, in needle-work and altar-cloths. The emperor, Charles IV., invited many skilful painters to Bohemia, where, as early as 1348, a corporation of painters was formed. In 1450, a distinguished school of painters began to flourish in Breslau, still earlier than that of Nuremberg. Werner of Tegernsee was distinguished for his excellent glass paintings. In the fifteenth century, Gleissmyller, Maler, Machselkircher, Futerer, and Zawnhack, were celebrated Bavarian painters; in Nuremberg, Hans Traut, Kulenbach, Hans Bauerlein, and Michael Wohlgemuth, the latter, the teacher of Albert Durer, were eminent. A second period of German art begins with Albert Durer (q. v.), who was esteemed by Raphael (from 1471—1528). After having studied in the school of Wohlgemuth, he travelled through Germany, the Netherlands, and Italy. Martin Schon may be called the *German Perugino*; his works bear a great resemblance to those of that master. The paintings of Luke Cranach (born 1470, died 1553) have acquired a particular interest from containing the portraits of the most distinguished persons of his time. The Holbein family produced many skilful painters; the most distinguished was Hans Holbein (born 1495, died 1554). Most of the principal painters of the German school, in the sixteenth century, were at the same time engravers. Their ideas were truly poetical, but sometimes too allegorical. The execution is finished, but they are deficient in beauty of forms and correctness of outline. Their glowing colouring, the expressive attitudes of the figures, the piety which breathes from their countenances, and, particularly, the spirit of their landscapes and back grounds, must strike every eye. In the seventeenth and in the first half of the eighteenth century, art in Germany was in a low state. The German schoo hardly survived Albert Durer and Holbein. Th difficult and artificial only was admired; nature an spirit gave way to laboured ornament. The caus of this decline were the reformation and the thirt years' war. A melancholy period of imitation fol lowed, in which the taste of Louis XIV. and the ex aggerated modern Italian school was the standard Although Mengs cannot be considered as a restore of art, at least for Germany, as his plastic princi ple was entirely opposed to the spirit of painting i general, and, in particular, to the German school, ye he improved the taste of his time by his severe manner.

German Law (jus Germanicum) is at present little more than a name. It signifies merely the civil law in Germany, so far as it is not derived from the ancient Roman, or from the canonical law, or from the laws of particular countries. From the fifth to the ninth century, the laws in the countries held by Germans, were in part articles agreed upon between the conquerors and the former inhabitants of the Roman provinces, living under Roman laws; in part, a compromise between the old pagan customs and license, and the Christian notions of religion and law; and, in part, compacts between the princes and their military followers, or the community. Such were the laws of the Visigoths, drawn up by king Eurichus, 466—484; of the Salian Franes, towards the end of the fifth century; of the Burgundians; of the Ripuarian Francs; of the Bavarians, and Alemans; of the Frisians; Saxons; of the Angles from the time of Charlemagne; of the Lombards (634—734); of the Anglo-Saxons till the Norman conquest. From the tenth century, the feudal tenure was almost the only mode of holding landed property, and the foundation of public law; but the feudal regulations were so far from constituting a complete and regular system of law, that the Roman law, which was taught in the universities of Lombardy, attracted scholars from all places, and influenced all the legal constitutions. The laws of the native tribes began to be collected systematically after the example had been given by the *Sachsen spiegel* (1215 and 1235), and many cities had their own codes of written or customary laws. The authority of the Roman law continually increased, and influenced public affairs. The native laws, however, continued in the courts, and retained, though greatly diversified, many principles in common. From the fifteenth century, the provincial legislation became more and more fixed. Almost every county received its *Landesordnung*, that is, a particular system of laws. The institution of the imperial chamber, in 1495, was followed by the *Landesprocessordnungen*, the criminal code of the emperor Charles V., and by criminal laws of separate states. George Beyer first delivered lectures on the German municipal law, at Wittenberg, in 1707. Of modern writers, Mittermaier's *Grundsatze des Deutschen Privatrechts* (Heidelberg, 1823, 2d edition, 1826) deserves mention.

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ERNING, John Christian, an entomologist, at Frankfort on the Maine, in 1745, died in the e place, in 1802. He prepared most of the text he great work, *Papillons de l'Europe* (Paris, 0—1792). He left one of the largest collections nsects ever made by a single individual. It con- s more than 30,000 specimens, about 5,500 spe- , and 500 varieties, and is still in Frankfort. His , *John Isaac*, born 1769, became known to the g and queen of Naples, when they lived in the se of his father, at the time of the coronation of pold II. He was afterwards, for a long time, he Neapolitan service, and went on several mis- ns to foreign courts. In 1818, he was ambassa- r of the landgrave of Hesse-Homburg, in London, ere he published (1821) his splendid work, Views the Rhine. He is also the author of several other rks, both in prose and in verse.

GERONA; a strong town of Spain, in Catalonia, the confluence of the Ona and the Ter, the latter which flows through the town. It is built in the rm of a triangle, on the slope and at the foot of a eep mountain. It is surrounded with good walls, anked with fortifications, and covered by two forts, rected on the mountain. Besides these, it has five ortified buildings. The streets are narrow and winding; the houses tolerably good. It has a semi- nary of education on a large scale. The cathedral is rich. It was taken by the French in 1809. Popu- lation, 14,000. Forty miles S. Perpignan.

GERONTES *(old men)*; magistrates in Sparta, who, with the ephori and kings, were the supreme uthority of the state. They could not be elevated o this dignity before their sixtieth year, at which ge the judges in the state of New York are obliged o retire from office. They could not be removed rom office, unless in extreme cases. There were wenty-eight, or, according to some, thirty-two of hese magistrates.

GERSTENBERG, Henry William von, was orn in 1737, at Tondern, in Sleswick, and died ov. 1, 1823. He was employed in the Danish ervice, both civil and military. His mind was ormed by intercourse with Klopstock, Cramer, iturm, &c. He was once the favourite of his nation, nd was distinguished for his writings, critical and oetical. He wrote many songs and several trage- ies. His *Ugolino* was successful, even on the stage.

GERYON; in fabulous history, son of Chrysaor nd Callirrhoe, a three-headed giant, who ruled, ccording to some, in Spain; according to others, n the Balearic islands, or in the distant island Erythia, where he possessed numerous and fine erds, which were guarded by the two-headed dog Orthrus and the giant Eurytion. The herds were arried away, and Geryon slain by Hercules, in obe- lience to the command of Eurystheus.

GESNER, Conrad, surnamed the *Pliny of Ger- many*, was born of poor parents, at Zurich, in 1516, where he studied, as also at Strasburg, Bourges, nd Paris, and was a schoolmaster in his native town. Hoping to raise himself from his needy condition, he went to Basle, and devoted himself particularly to the study of medicine. He became, afterwards, professor of the Greek language at Lausanne, and, after a short residence at Montpellier, he was made professor of philosophy, and practised as a physician at Zurich, where he died of the plague, in 1565. Medicine, philology, and the history of literature were his departments. He commenced his labours in the last branch by his *Bibliotheca Universalis*, a full catalogue of all writers extant in three languages, Greek, Latin, and Hebrew (Zurich, 1545—55, 4 vols., fol.). This work is a monument of immense learning and industry. Natural history was awak- ened by him from its slumber of centuries. He col- lected matter in every quarter, either from his own observations or from the works of the ancients. His history of animals must be regarded as the foundation of modern zoology (*Hist. Animalium*, Zurich, 1550 —87, 4 vols., fol.). He also rendered a service to science by a complete translation of Ælian. As a botanist, he surpassed all his predecessors or contem- poraries; travelled through almost all parts of Europe, to see and to collect; established, notwithstanding his slender resources, a botanic garden of rare plants, supported an artist to draw and paint, and formed the first cabinet of natural history. He was the inventor of botanical arrangement, since he distri- buted the vegetable kingdom into classes, genera, and species, according to the characters of the seeds and flowers. The medicinal properties of plants were not neglected by him, and he made experi- ments, first upon himself and then upon others. He wrote also on mineral springs, medicines, the nature and relation of languages (Mithridates), and edited and commented upon several ancient writers. He was as modest and obliging as he was learned. For his various and great merits, he was ennobled the year before his death. See Hanhart's *Life of Conrad Gesner*, Winterthur, 1824.

GESNER, John Matthew. This scholar was born at Roth in Anspach, 1691, and died in 1761, at Gottingen. After he had completed his studies at Jena, he became, in 1715, co-rector and librarian at Weimar; in 1728, rector of the gymnasium at Ans- pach; in 1730, rector of the school of St Thomas at Leipsic; and, in 1734, professor of rhetoric, and sub- sequently librarian, in the newly erected university of Gottingen. He laboured with equal judgment and zeal to improve the course of instruction and the study of the ancient languages. By his editions of the ancient writers on agriculture, of Quinctilian, Pliny the Younger, Claudian, Horace, and Orpheus, he introduced an instructive mode of illustrating the ancient classics, and, by his *Primæ Lineæ Isagoges in Eruditionem universam*, he prepared the way for a general study of the sciences. His *Ciceronian* and *Plinian Chrestomathies* are useful school books. He rendered service to the study of the Roman language and literature, by his edition of Faber's *Thesaurus*, and still more by his New Thesaurus of the Roman Language and Literature (Leipsic, 1749, 4 vols., fol.), in which he collected the whole vocabulary of the Latin language.

GESSNER, Solomon, a German poet, author of the death of Abel, was born at Zurich, in 1730, where his father was a bookseller and a member of the great council. He was intrusted to the care of a country priest, after it was found that his early educa- tion had not awakened his intellect. Here his mind, hitherto depressed by mortifying censures, was aroused. He made advances in the Latin language, and his intercourse with his instructor's son, who read the best German writers, as well as the beauty of the surrounding country, developed his natural disposition to poetry. After two years, he returned to his friends. His intercourse with the most eminent scholars in Zurich served to correct and extend his knowledge, and to enlighten his conceptions. Gessner's father desired that he should undertake the business of a bookseller, and sent him, in 1749, to Berlin, that he might prepare himself for this occupa- tion. He entertained, however, so decided a dislike for the business, that he left his master. As his father endeavoured to compel his return, by with- holding the money necessary to his support, he main- tained himself by executing landscapes, which were well received. In 1762, he published, in four volumes, the poems which he had previously given to the world

on different occasions. In 1772, he published another volume of idyls. Their quiet, amiable character pleased many in Germany and in France, where they were translated by Huber; they were received with enthusiasm, and the author was regarded as a poet of the first rank. He is, in fact, the only German writer whom the French poets have repeatedly translated and imitated. From France his fame spread over all Europe. The most popular of his idyls is the Death of Abel, which has been translated into many foreign languages. In the mean time, he was married, and, for the sake of support, devoted himself seriously to painting. His advances were rapid, and his success splendid. His pieces brought high prices, and enchanted by the most delightful representations of nature. The remainder of his life passed quietly and pleasantly, till an apoplectic attack, March 2, 1787, brought it to a close. A certain tenderness and a melodious language are the sources of the success of Gessner's writings; but he is deficient in depth and strength. In landscape painting, he has merits which no age will diminish. His etching is light and powerful; his views are select, wild, and romantic; and his trees are particularly fine. Twelve engraved landscapes, published in 1770, are considered among his best works. All who were acquainted with Gessner, describe him as an amiable, modest, high-minded, and patriotic man, who was as simple, natural, and true in his manners, as he appears in his works. Of his works, the best editions are those of Zurich, 1777—8, 2 vols., 4to, and a small elegant edition, Zurich, 1765—74, 5 vols.; also, one of 1800, 3 vols. His fellow citizens erected a monument to him. His oldest son, Conrad Gessner, who distinguished himself, first by his pictures of horses and by his battle-pieces, and afterwards by his landscapes, studied at Dresden and Rome. From 1796 to 1804, he lived in England; then in his native town of Zurich, where he died, aged 62, May 8, 1826.

GHAUTS. See *Gauts*.

GHENT (in French, *Gand*; in German, *Gent*); capital of the province of East Flanders, formerly of the whole county of Flanders, and, at a later period, of the Austrian part of the county; a well-built city at the confluence of the rivers Lys, Lievre, and More with the Scheldt. Lon. 3° 44′ E.; lat. 51° 3′ N. Ghent has manufactories of woollen and cotton goods, linen, hats, leather, &c. Rivers and canals divide the city into twenty-six islands, connected by eighty-five bridges; it covers a large area. In the time of Philip of Valois and Charles V., this city could raise 50,000 men; but in the time of Charles V., who was born here, its splendour began to decline. Enormous taxes induced the inhabitants, in 1539, to throw themselves into the arms of Francis I. of France. But Francis betrayed them to Charles V., who ordered thirty of the principal citizens to be executed, and many to be exiled, took possession of the public buildings, abolished all the privileges of the city, which were very great, built a citadel, and imposed on them a heavy fine. The cathedral is remarkable. There are fifty-five other churches, and many other public buildings. The city has some important scientific institutions. A treaty was concluded at Ghent between the United States and Britain in 1814. Population 60,000. See *the following article*.

GHENT, TREATY OF. The war of 1812, between Great Britain and America (see *United States*), was terminated by the treaty of Ghent, December 24, 1814. The British commissioners for negotiating a peace—lord Gambier, Messrs Henry Goulburn and William Adams—arrived in that city in August, where the American commissioners—J. Q. Adams, Gallatin, Bayard, Clay, and Russell—were already assembled. Excepting the establishment of peace, the treaty made no alteration in the situation of the countries, the terms proposed by the respective commissioners being mutually rejected. The disputed points of maritime law and the subject of commerce were reserved for future discussion. The treaty relates principally to boundaries, but it settles nothing in respect to them; it merely provides for the mutual appointment of commissioners to examine and report to their respective governments on certain disputed points of the treaty of 1783. See Lyman's *Diplomacy of the United States*, 2d edit., 2 vols., Boston, 1828.

GHERARDESCA; a family which play[ed] an important part in the history of the Italian republics of the middle ages. It originated from Tuscany, where the counties of Gherardesca, Donoratico, and Montescudaio (in the Maremme between Pisa and Piombino) belonged to it. About the beginning of the thirteenth century, the counts of Gherardesca united themselves with the powerful and rich republic of Pisa, and placed themselves at the head of the people, in opposition to the aristocracy. In the great contest between the Gibelines and Guelfs (q. v.) they joined the party of the Suabian emperors, and fought not less bravely than faithfully under the Gibeline banner. Two of this family—the counts Gherardo and Galvano Donoratico—accompanied Conradin of Hohenstaufen in his unfortunate expedition to Naples, and died with him on the scaffold. This adherence to the interests of the emperors involved the Gherardescas, as early as 1237, in hostilities with the Visconti, who belonged to the party of the Guelfs; and all Pisa was divided between the two parties. At length the head of this powerful family, Ugolino Gherardesca, resolved to make himself master of his native city (Pisa). Being first magistrate in the republic, and head of the Gibelines in the city, he expected to find but little difficulty in attaining his object. Contrary, however, to the politics of his house and the spirit of his age, he so far coalesced with the Guelfs as to give his sister in marriage to John Visconti, judge of Gallura, and chief of the Guelfs in Pisa. This measure made him suspected by all, and indeed, the Pisans had a right to look with displeasure on an alliance, the secret conditions of which were the overthrow of the freedom of the city. Visconti agreed to secure to Ugolino the support of the Guelfs in Tuscany, and to furnish him secretly with some mercenaries whom he had collected in Sardinia for his own ambitious purposes. The plan, however, was not successful, on account of the vigilance of the Pisans. Gallura was banished, June 24, 1274, and Ugolino imprisoned. The former armed the Guelfs against Pisa; but his early death at San-Miniato freed the republic from its dangerous adversary. Ugolino, however, who was likewise banished soon after, joined the Florentines and the people of Lucca, at the head of whom he gained several victories over the Pisans, and compelled them to recall him in 1276. Returning to his former plans, he endeavoured to secure the friendship of the Gibelines in the city, as well as that of the Guelfs abroad, and his prudence and riches enabled him to succeed but too well. The now vigilant republicans suffered themselves to be lulled into security, and, in 1282, the war with Genoa, so unfortunate for Pisa, afforded Ugolino an opportunity for breaking the power of the people. In the battle of Meloria (August 6, 1284), memorable for the final destruction of the Pisan fleet, and in which 11,000 Pisans were made prisoners by the Genoese, Ugolino betrayed his country, and, by his premeditated desertion, gave the signal for general flight; the rest, giving up all for lost, followed him in confusion. The old enemies of Pisa, the Florentines, Luccanese,

rentese, the cities of Pistoia, Prato, Volterra, San-eminiano, and Colla, in a word, all the Guelfs of uscany, on receiving intelligence of this misfortune, etermined, by a decisive blow, to annihilate the ncient city of Pisa, the principal support of the ibelines in Italy. The state, on the brink of de-ruction, now saw itself compelled to throw itself nto the arms of him whose treachery had reduced it o this situation. Ugolino, for a long time secretly onnected with the chiefs of the Guelfs, undertook he negotiation with the enemies of the city, which e managed in such a manner, that he at length saw imself almost at the summit of his wishes. The eaders of the Gibelines were banished; the Floren-tines took possession of many castles, and Ugolino, under the protection of the enemies of Pisa, ruled the fallen state. He reduced it still further by the sur-render of certain castles to the Luccanese, which gave them access to the gates of the city, and by avoiding the conclusion of a peace with Genoa, which would have set at liberty the prisoners captured at Meloria. While he thus oppressed his native coun-try, and gratified his hatred against his enemies, by banishing them, a conspiracy was formed against him in his own family. Nino di Gallura, his nephew, dis-gusted with his tyranny, united the principal families, both of the Gibelines and Guelfs, the Gualandi, Sis-mondi, Lanfranchi, and others, to rescue Pisa from the degradation into which she was sunk. After a con-test of nearly three years, the intrigues of Ugolino succeeded, with the assistance of the archbishop of Pisa, Roger de' Ubaldini, in dissolving this league, and regaining the Gibelines. The Lanfranchi and others forsook Nino di Gallura, who was banished, together with many of his friends. Ubaldini was re-warded for his services by being driven from the pub-lic palace by Ugolino, who had promised to share with him the dominion of Pisa. The ambition of the usurper now knew no bounds. The people were oppressed; the lives of his own relations were threatened, and he murdered, with his own hands, a nephew of the archbishop. Such crimes united all against him; and Ubaldini, no less ambitious, artful, and cruel than Ugolino, was at the head of the con-spirators. He artfully concealed the plan from the tyrant till it was fully matured, and Ugolino's refusal to finish the war with Genoa afforded the opportunity for the breaking out of the conspiracy. On the 1st of July, 1288, Ubaldini caused the tocsin to be sounded. Ugolino was attacked on all sides, and, after an obstinate resistance, which continued till evening, was made prisoner, with two of his sons, Gaddo and Uguccione, and two of his grandsons, Nino, surnamed *le Brigata*, and Aurelio Nuncio. These are the five persons whose horrible death Dante describes in his *Inferno*. Roger or Rugieri de' Ubaldini caused these unfortunate persons to be carried to the castle of Gualandi, since called *Torre della Fame*, and, setting no bounds to his vengeance, after some months, he threw the keys into the Arno, and doomed the prisoners to die by hunger. Poets and artists have often described or represented the terrible end of Ugolino and his companions, and pos-terity has forgotten his crimes in his horrible punish-ment. Many of the family of Ugolino were either absent from Pisa, or escaped by flight from this dread-ful catastrophe, so that the family of Gherardesca soon recovered its former splendour and distinction, both at home and abroad; and, in 1320, we find Rieri Donoratico Gherardesca at the head of the ad-ministration in Pisa. A natural son of this Rieri, Man-fred Gherardesca, at the head of the Pisanese garri-son, defended Cagliari, with a very inferior force, against Alfonso IV. of Arragon, and by his valour rendered the battle of Luco-Cisterna, Feb. 28, 1324, doubtful. The Arragonese did not succeed in taking Cagliari till after the death of Manfred, who died of wounds received in a sally. Another Gherardesca, Bonifazio, was made *capitano* of Pisa in 1329, when that city shook off the yoke of the celebrated Cas-truccio Castracani, and of the emperor Louis of Bavaria. His wisdom and integrity gained him the love of his fellow-citizens, and the city was indebted to him for the advantageous peace which it soon after concluded with its old enemies the Guelfs. He also suppressed a conspiracy of the nobility against the people (1335), and compelled the conspirators to leave the city. In 1340, this excellent man died of the plague, and the grateful Pisans appointed his son Rieri, then only eleven years of age, his successor in the office of *capitano*. In 1348, Rieri also died of the plague, by which the Gherardesca family lost many of its members: the rest withdrew to the family estates in the Maremme, and took little share in the political transactions of Pisa. Philip Gherar-desca, born at Pistoia (1730), distinguished himself in music as a composer and piano-fortist. He studied, while young, with P. Martini at Bologna, and in a short time became his most distinguished pupil. He died, 1808, at Pisa.

GHIBELINES. See *Guelfs*.

GHIBERTI, Lorenzo; a statuary, born in 1378, at Florence. His ancestors had distinguished them-selves in the arts, particularly in that of the gold-smith, in which the Florentines had acquired great celebrity. He early learned from his step-father, Bartoluccio, an expert goldsmith, the arts of drawing and modelling, and that of casting metals. He after-wards probably enjoyed the instructions of Starnina. Being obliged to leave Florence on account of the plague, which prevailed there at the end of the fourteenth century, he was engaged in painting in fresco at Rimini, in the palace of prince Pandolfo Malatesta, when the *priori* of the society of merchants at Florence invited artists to propose models for one of the bronze doors, which still adorns the baptistery of St John. The offering up of Isaac was to be executed in gilt bronze, as a specimen of the work. The judges selected the work of the celebrated Bru-nelleschi, that of Donatello, and that of Ghiberti, as the three best; but the two first voluntarily withdrew their claims, giving the preference to Ghiberti. After twenty-one years' labour, Ghiberti completed the door, and, at the request of the *priori*, executed a second, after almost as long a period. Michael Angelo said of these, that they were worthy of adorning the entrance to paradise. During these forty years, Ghiberti also completed a statue of John the Baptist for the church Or-San-Michele, two bass-reliefs for the baptistery of the cathedral of Sienna, a statue of St Matthew, and one of St Stephen, likewise for the church Or-San-Michele, and for the church Santa-Maria del Fiore, the bronze reliquary of St Zenobius, bishop of Florence. All these works are still pre-served, and serve to show the progress of Ghiberti. The dryness of the school of Giotto appears in his early works; the later are in imitation of the Greeks, and are marked by continually increasing vigour and firmness. The reliquary of Zenobius and the two doors are, to this day, among the finest speci-mens of art in modern Italy. Ghiberti also executed some excellent paintings on glass, for the churches Or-San-Michele and Santa-Maria del Fiore. A work by him on sculpture is extant, a fragment only of which has been published by Cicognara. He died about the year 1455. The Calmuc Feodor Iwano-witsch published twelve beautiful etchings of the doors of Ghiberti (1798).

GHIRLANDAIO, Domenico; one of the elder Florentine painters. He was distinguished for ferti-

lity of invention, and has therefore been imitated by later artists. He was born at Florence, 1449, and distinguished himself by a more accurate perspective than his predecessors, although he could not divest himself of the habit of using gold, particularly in the ornaments of his drapery. Several of his larger works may be found in the chapel Sassetti, and in the Trinity church at Florence, particularly his historical pieces from the life of St Francis. His Truth is in the Giustiniani (q. v.) collection. Ghirlandaio had the honour of being the teacher of Michael Angelo. His brothers, David and Benedict, did not equal him as painters. Rhidolfo di Ghirlandaio was a friend of Raphael and the pupil of Fra Bartolomeo.

GHOST, Holy; according to Trinitarians, the third person in the Holy Trinity; according to the Socinians, a biblical metaphor, to designate the divine influence; according to some German rationalists, the Deity himself, as far as he exercises an influence for spiritual and moral ends in general, and for the support and extension of Christianity in particular. The Roman Catholic church, in speaking of the origin of the persons of the Godhead, declares the Son to be begotten by the Father, and the Holy Ghost to have proceeded from both; yet the Son and Holy Ghost are both eternal, since they are co-eternal with the Father. (See *Creed*.) This is the doctrine of the Athanasian creed, and was adopted also by the Lutherans and Calvinists. The Holy Ghost is equal to the other persons of the Trinity. (See *Trinity*.) The Greek Catholic church maintains that the Holy Ghost proceeds from the Father only; and this difference is one of the main points of distinction between that church and the Roman Catholic. The history of the controversy is shortly this: Tertullian and Origen, two distinguished fathers of the church in the third century, maintained that the Holy Ghost was begotten by the Father through the Son, and was superior to all other creatures. Macedonius, bishop of Constantinople, in the middle of the fourth century, denied that the Holy Ghost was equal in essence and dignity to God the Father. The council of Alexandria (362) declared this bishop and his adherents, the Pneumatomachists, teachers of heresy; and the general council at Constantinople (381) declared expressly to the whole Christian church, that the Holy Ghost was the third person of the Trinity, proceeding from the Father, and to be worshipped equally with the Father and the Son. Augustine taught, that the Holy Ghost proceeds from the Father and the Son; and the council of Toledo, in 589, condemned all who believed otherwise. This deviation from the former dogma occasioned a controversy, which lasted from the eighth to the eleventh century, between the Western or Latin, and the Eastern or Greek churches, and finally led to their complete separation. The Western church and the Protestants maintained that the Holy Ghost proceeds from the Father and the Son, while the Eastern church asserted that he proceeds from the Father alone. The worship of the Holy Ghost as the third person in the Godhead, is, however, common to both churches, and to the Protestant Trinitarians, being essential to the faith in the divine Trinity.

GHOST, Holy, order of the; an order of male and female hospitallers. Guy, son of William, count of Montpellier, founded this order, towards the end of the twelfth century, for the relief of the poor, the infirm, and foundlings. He took the vows himself, and gave a rule to the order. Pope Innocent III. confirmed the order in 1198, and founded an hospital in Rome, on which all the hospitals of the order on the Italian side of the Alps were dependent: all north of the mountains were dependent upon that of Montpellier. It is not known when the order began to admit females. They take care of young children, educate foundlings, and have several hospitals in France. The dress of both sexes is black, with a double white cross of twelve points on the left breast.

Ghost, Holy, Order of the; the principal military order in France, instituted in 1574, by Henry III. The knights were required to prove their nobility for three descents. The order of St Michael was the lowest rank. The revolution abolished it, with all the other orders. The Bourbons revived it.

GIANNONE, Pietro; an author equally celebrated by his fate and by his writings, born May 7, 1676, at Ischitella, in the province of Capitanata (kingdom of Naples). His talents gained him access to the house of the learned lawyer Gaetano Argento in Naples, in which almost all the distinguished men of the capital were at that time accustomed to assemble. Here he conceived the plan of his most celebrated work, which determined the destiny of his whole life, his *Storia civile del Regno di Napoli* (4 vols., 4to, Naples, 1723), in the composition of which he spent twenty years, and in which the work of Angelo di Costanzo, On Naples, served him as a guide. The severity with which Giannone treated the church, drew upon him the persecutions of the court of Rome, and of the clergy in general; and neither the authority of the viceroy of Naples, nor the protection of the municipality of Naples, of which Giannone had been elected advocate, were able to avert the storm. The priests instigated the people of the city against the man who had exposed the spiritual oppression of the Romish court. The offensive publication was burnt, and the author excommunicated. Giannone therefore quitted Naples (1723), and took refuge in Vienna. Here the protection of prince Eugene, and the intercession of the chancellor Zinzendorf, of count Bonneval, who afterwards became so celebrated, and the chevalier Garelli, then physician of the emperor, procured him a pension. The emperor Charles VI. still, however, regarded him with a suspicious eye, and, in 1734, when don Carlos ascended the throne of Naples, not only was his pension taken from him, but he was obliged to leave Vienna. Giannone now withdrew to Venice, with the intention of continuing the work which he had already begun at Vienna—*Il Triregno, ossia del Regno del Cielo, della Terra e del Papa*, on which he spent twelve years. It is to be regretted, that his misfortunes prevented him from completing it as he had proposed; he brought it down only as far as the ninth century. Some bitter satires against the Roman court, which he had written in Vienna, where the cardinal Pignatelli had released him from the excommunication, were, by the advice of his friends, not published. Giannone was favourably received in Venice, particularly by the senator Angiolo Pisani, but his prospects were soon changed. Having declined to enter into the service of the republic as advocate, and being suspected of entertaining opinions by no means favourable to the pretensions of that ambitious state, in respect to the Adriatic sea, he had, besides, the imprudence to associate too much with the ambassadors of France and Spain. This was sufficient to awaken the jealousy of the most suspicious of all governments. His *Lettera intorno al Dominio del Mare Adriatico ed ai Trattati seguiti in Venezia tral Papa Alessandro III., e l'Imperador Federico Barbarossa*, published a short time before, in favour of the dominion of Venice over the Adriatic, could not remove the suspicions of the senate, and one night (in September, 1735), the *sbirri* of the republic seised him, and the poor author was transported, as a dangerous enemy of the state, beyond

e frontiers of the Venetian territory, into the rritory of Ferrara. Apprehensive of new persecu-ons, he took the name of Antonio Rinaldo, and, ter a short residence in Modena, Milan, and Turin, retired with his son to Geneva, where he was not ily received with respect by the most distinguished en, but also found the most liberal support. He as preparing to publish a supplement to his history Naples, when, enticed by a villain, he had the prudence to attend the festival of Easter (1736), a village of Savoy, where he was immediately rrested and carried to the castle of Miolan, and, fterwards, to the fortress of Ceve, and, finally, to the citadel of Turin. Here he died, at the age f seventy-two years, a victim of priestly hatred, after wenty-two years of confinement, which was, part of he time, so strict that he was denied even the ight of his son. His manuscripts were carried to Rome, by the order of the papal court. His attempt to regain his freedom, during the dispute between the courts of Turin and Rome, by writing in favour of the king of Sardinia, had been as unsuccessful as his recantation of the principles expressed in his *Storia Civile*, to which he was persuaded by the treacherous suggestions of father Prever. His *Opere postume in Difesa della sua Storia Civile*, &c., of which the severest passages against the Roman clergy had been published separately at the Hague, in 1738, under the title *Anecdotes ecclésiastiques*, appeared after his death, at Lausanne, 1760.

GIANTS; people of extraordinary stature. History, both sacred and profane, makes mention of giants. Nothing is more natural, in ages when the past and the future are connected together only by tradition, than that the height of a tall man should be exaggerated every year after his death. In the same way, a small person would dwindle into a dwarf or a pigmy. The same effect which is produced by distance of time is also produced by distance of place, so that a nation of tall men, living on a distant shore, would become, in the tale of the mariner, a race of giants. Nations and individuals, in their childhood, love the miraculous; and any event which deviates from the common course of things, immediately becomes a wonder, on which poetry eagerly seises; hence the Cyclops and Læstrygons of the ancients, and the Ogres of romance. Instances, however, are by no means wanting of uncommonly large persons, hardly needing the exaggeration of a lively imagination to make them objects of wonder. According to the Jewish traditions, a people existed before the deluge, of uncommon stature, called the *sons of God*. And at a much later period, when the Israelites sent spies into the land of promise, they brought back word that the sons of Anak, in Hebron, were giants, and that they themselves appeared like grasshoppers before them. The last of this tribe was Og, king of Bashan, conquered by Moses: he had a bedstead nine cubits long and four cubits broad. In the neighbourhood of Jerusalem, a tomb was shown, for a long time after, with the inscription, *Here lies the giant Og*. In 1670, a tooth was said to have been found in this grave weighing 4½ lbs. The Jewish commentators make Goliath eleven feet high.

The giants of Greek mythology are believed, by some, to represent the struggle of the elements of nature against the gods, that is, against the order of creation. They were said to have sprung from the blood of Cœlum, which fell into the lap of Terra (the earth). Their mother, indignant at the banishment of the Titans into Tartarus, excited them to revolt against Jove. They hurled mountains and forests against Olympus, disdaining the lightnings of Jupiter. An oracle having declared that the gods could not conquer except by the assistance of a mortal, Minerva called Hercules to their aid. He slew Alcyoneus and Porphyrion, the most formidable of the giants. Apollo and Hercules shot out the eyes of Ephialtes; Bacchus slew Eurytus with his Thyrsus; Hecate and Vulcan killed Clytius with clubs of hot iron; Neptune hurled a part of the island of Cos on Polybotes; Minerva buried Enceladus under the island of Sicily, and flayed Pallas, and made a shield of his skin. The remainder perished under the hands of other deities, by the thunderbolts of Jupiter or the arrows of Hercules. This fable, perhaps, indicates volcanic eruptions, for which the Phlegræan fields, where the chief scene of this struggle is placed, and where the two principal giants were born, were remarkable. Cos and Sicily, which figure in this fable, are also volcanic. Ovid has described the war of the giants in the beginning of his Metamorphoses.

Strabo tells of the skeleton of Antæus, found in Mauritania, sixty cubits long. Pliny speaks of a skeleton forty-six cubits long, laid bare by an earthquake in Crete. In the battle between Marius and the Teutones, at Aquæ Sextiæ, the king of the latter, Theutobochus, is represented as a giant. In 1613, his skeleton was pretended to have been found in Upper Burgundy. A brick tomb was discovered, thirty feet long, twelve feet broad, and eight feet high, on which was the inscription *Theutobochus rex*. According to tradition, a skeleton was in the grave, twenty-five and a half feet long, ten across the shoulders, and five feet through, from the breast bone to the back bone. The thigh bones were four feet long. The bones, the story says, were finally carried to England, and it is not known what became of them. We have similar accounts in the sixteenth century. Thus Dalechamp pretended to have found a skeleton eighteen feet in length; Felix Plater, one of nineteen feet, near Lucerne; and Licetus, one in Sicily, thirty feet in length. But it has long been known that these bones do not belong to giants, but to animals of the primitive world, which from ignorance of anatomy, were taken for human bones. The Guanches, the original inhabitants of the Canaries, were described by a credulous traveller as appearing to have been at least fifteen feet long, from an examination of their mummies. Similar accounts were given of the Patagonians; but captain Carteret, who measured several of them, found that most of them were but from six feet to six feet five inches high. The measurements of Wallis agree with this. The ordinary height of men is between five and six feet, and the greatest deviations from this medium height, in Europe, are found in England and Switzerland. Frederic William I. of Prussia, had such a rage for collecting tall men as guards, that a man of extraordinary height could not escape being made a soldier, whatever was his profession; and it is related that Augustus, king of Poland, a man of good stature, could only reach the chin of the tallest man of the Prussian guards with his hand. Very tall persons have commonly a feeble pulse, and do not generally live long.

GIANT BEDS (in German, *Hunengraber*) are *tumuli*, in Germany, particularly near the coasts of the Baltic and on the island of Rugen. They are of different sizes, and sometimes very large, generally enclosed with stones of such weight as would seem to have required machinery to move them. Earthen vessels, metallic ornaments, sacrificial stones, knives, battle-axes, &c., are sometimes found in them; sometimes they are entirely empty. They are supposed, by some, to be general graves of persons who fell in the battles fought in those countries, between the Vandals and Germans.

GIANT'S CAUSEWAY; a promontory in Ireland, in the county of Antrim, on the north coast, west of Bengore Head; eight miles N. E. Coleraine, 120 N. Dublin. It consists of many hundred thousands of columns, composed of a hard black rock, rising perpendicularly from 200 to 400 feet above the water's edge. The columns, or basaltes, are generally pentagonal, or have five sides, and are so closely attached to each other, that, though perfectly distinct, from top to bottom, scarcely any thing can be introduced between them. This extraordinary disposition of the rocks continues below the water's edge; it also obtains, in a small degree, on the opposite shore in Scotland. The columns are not each of one solid stone, in an upright position, but composed of several short lengths, exactly joined, not with flat surfaces, but articulated into each other, as a ball in a socket, one end of the joint having a cavity of three or four inches deep, into which the convex end of the opposite joint is exactly fitted. This is not visible till the stones are disjointed. The Giant's Causeway is accounted the greatest natural curiosity in Ireland, and one of the most remarkable of the kind in the world.

GIAOUR; a Turkish word, meaning *dog*, used by the Turks to designate the adherents of all religions except the Mohammedan, more particularly Christians. The use of it is so common that it is often applied without intending an insult.

GIBBON, Edward; an eminent English historian, was born at Putney, in 1737. He was the son of Edward Gibbon, a gentleman of an ancient Kentish family. After being two years at a private school at Kingston-upon-Thames, he was sent, at the age of twelve, to Westminster, where his weak state of health precluded him from making a regular progress in the classical studies of the school. After several changes of situation, in which he was chiefly the object of medical care, his constitution suddenly acquired firmness, and he entered as a gentleman commoner at Magdalen college, Oxford, before he had completed his fifteenth year. He remained fourteen months at Oxford, which he characterises in his memoirs as most unprofitably spent; and his censure of that university is very strong and unequivocal. To a total neglect of religious instruction he attributes his boyish conversion to the Roman Catholic religion, which was produced by an assiduous perusal of the controversies between the Catholics and Protestants; and, to use his own expressions, as he entered into the field "without armour," he fell before the "weapons of authority, which the Catholics know so well how to wield." Following his convictions, he abjured the errors of heresy at the feet of a Catholic priest in London, and then wrote a long letter to his father, to justify the step which he had taken. The consequence of this disclosure was his immediate banishment to Lausanne, where he was placed under the care of M. Pavillard, a learned Calvinistic minister. By the well-directed efforts of his tutor, aided by his own mature reflections, his new faith gradually gave way, and he was again restored to Protestantism. His residence at Lausanne was highly favourable to his progress in knowledge, and the formation of regular habits of study. The belles-lettres, and the history of the human mind, chiefly occupied his attention; and to this fortunate period of retirement and application, he was chiefly indebted for his future reputation as a writer and a thinker. In 1758, he returned to England, and immediately began to lay the foundation of a copious library; and soon after composed his *Essai sur l'Etude de la Littérature*, in the French language, which, for some years, had been more familiar to him than his own. This work, which was printed in 1761, was a highly respectable juvenile performance, and obtained considerable praise in the foreign journals. He some time after accepted a captain's commission in the Hants militia, and for some time studied military tactics with great assiduity; but he heartily rejoiced when the peace of 1763 set him free. After passing some months in the metropolis, he visited Paris and Lausanne, at which latter place he employed himself in collecting and preparing materials for a profitable journey to Italy. This took place in 1764; and it was at Rome, as he himself informs us, on the fifteenth of October, in that year, as he sat musing among the ruins of the capitol, "while the barefooted friars were singing vespers in the temple of Jupiter," that his idea of writing the Decline and Fall of the Roman Empire entered his mind. He had previously thought of the history of the republic of Florence, and of that of the Swiss liberty, in the last of which he had made some progress, but he subsequently committed the MS. to the flames. In 1770, he first tried his powers in his native tongue, by a pamphlet in refutation of Warburton's extraordinary hypothesis concerning the connexion of Virgil's fabled descent of Æneas with the Eleusinian mysteries, entitled Critical Observations on the sixth Book of the Æneid. It received great commendation, particularly from professor Heyne, and proved a conclusive refutation. In 1774, by the favour of his kinsman, Mr (afterwards lord) Eliott, he obtained a seat in parliament for the borough of Liskeard, and was a silent supporter of the North administration and its American politics for eight years. In 1776, the first quarto volume of his Decline and Fall of the Roman Empire was given to the public, which at once rivetted general attention; the first edition going off in a few days, and a second and a third being scarcely equal to the demand. Of all the applause he received, none seemed to flatter him so much as the spontaneous suffrages of Hume and Robertson. The prosecution of his history was for some time delayed, by his complying with the request of ministers to answer a manifesto which the French court had issued against Great Britain, preparatory to war. This he very ably executed in a *Mémoire Justificatif*, composed in French, which was delivered in a state paper to the courts of Europe, and for this service he received the appointment of one of the lords of trade. In 1781 appeared the second and third volumes of his history; and at a new election he lost his seat for Liskeard, but was brought in by ministerial influence for the borough of Lymington. On the retirement of the North administration, he lost his appointment, by the dissolution of the board of trade, and immediately formed the resolution of retiring to his favourite Lausanne, which plan he put into execution in 1783. Here, in the course of four years, he completed the three remaining volumes of his history, which were published together in April, 1788. The storms of the French revolution, which he regarded from the first with fear and aversion, gradually lessened his attachment to Lausanne; but his return to England, which took place in 1793, was hastened by his solicitude to sympathise with his friend, lord Sheffield, under a heavy domestic calamity. He spent some months with that nobleman; when a disorder, which he had endured for three-and-twenty years, terminated in a mortification, that carried him off on the 16th January, 1794, in the sixty-seventh year of his age. Mr Gibbon was fond of society, and possessed, in an eminent degree, the manners and sentiments of a gentleman. It is as the student and historian that he principally claims attention; and in these capacities the universal acknowledgment of the world has allowed him the highest rank. In 1796, his friend, lord Sheffield, published two quarto volumes of his miscellaneous works, of which the

most valuable part is the Memoirs of his Life and Writings, which are written with much apparent frankness. The merits and defects of his great history, its elegance and research, as well as its occasional indecency of allusion, and its sneers at revealed religion, are too well known to need comment. Niebuhr, the celebrated Roman historian, professes to wish only to bring down his history to the commencement of Gibbon's.

GIBELINES. See *Guelfs*.

GIBRALTAR, a rocky promontory, from 1200 to 1400 feet above the level of the sea, lies at the southern extremity of the Spanish province of Andalusia, at the entrance from the Atlantic to the Mediterranean, on a strait about fifteen miles across; lat. 36° 7′ N.; lon. 5° 19′ 4″ W. It is seven or eight miles in length, from north to south, and, in the widest part, not half a mile in breadth. It is everywhere precipitous, and in some parts perpendicular. Nature and art have conspired to make it an impregnable fortress. It belongs to Great Britain, and is kept up at a yearly expense, in time of peace, of £200,000. The revenue drawn from it is about £40,000. The great works are on the western front. The other sides, from their shape, bid complete defiance to attack. The name is formed from the Arabic words *gibel al Tarif* (the height, or rock of Tarif), since Tarif Abenzaca, the general of the caliph Walid, at the time of the irruption of the Arabs into Spain (A. D. 711, et seq.), landed at the foot of this rock (known as the *Calpe* of antiquity), where he took the town of Heraclea. This town undoubtedly owed its name to the story that this rock, and the corresponding African promontory, were called by Hercules his *pillars*, to indicate the termination here of his various adventures. This fortification has a numerous garrison. It was taken from the Arabians by Ferdinand, king of Castile, in 1302. In 1333, they retook it, and were finally deprived of it in 1462, by Henry IV. The upper wall of the Moorish castle, upon the north side of the rock, which was surrounded by a triple wall, in the Moorish fashion, has been suffered to remain to protect the town against artillery upon the landward side. The site of the lowest wall is occupied by the large battery, which was erected to protect the gate upon the north: that of the second, or middle wall, is occupied by private warehouses. The German engineer Speckel, of Strasburg, in the reign of the emperor Charles V., substituted, for the old Moorish fortifications, works in the European style. In the war of the Spanish succession, the Spaniards were obliged to surrender this fortress, August 4, 1704, to the British admiral Rooke, and prince George of Darmstadt, then imperial field-marshal and viceroy of Catalonia, who appeared unexpectedly before this fortress in May of the same year. King Philip of Anjou caused it to be attacked on the land side, October 12, 1704, with 10,000 men, at a point where the fortification is connected with the main land by a narrow sandy neck, so fortified by the British that the Spaniards called the works *puerta de fuego* (the gate of fire). At the same time, Gibraltar was blockaded by sea by admiral Poyes, with twenty-four sail of vessels. Just when it was reduced to extremity, it received assistance from the British and Dutch fleet, under admiral Leake. The blockade by land continued without any results, till the conclusion of the peace of Utrecht, in 1716. Since this time, nothing has been omitted by Britain to render this fortress, which is the bulwark of her Mediterranean trade, absolutely impregnable. As, however, the increasing value of the place rendered the possession of it more desirable to Spain, the siege of it was commenced March 7, 1727, but raised upon the approach of admiral Wager, with eleven ships of the line. Spain then offered two millions sterling for the delivery of the place, but in vain; and by a compact at Seville, in 1729, it agreed to renounce all its claims upon it. Still it omitted nothing to prevent all entrance into the fortification, and to separate it from the main land, by constantly strengthening the lines of St Roch and Algesiras. But it was easy to supply the inhabitants and garrison by sea; and a fresh spring flows from the rock; the rain too, forms collections of pure and sweet water in the cavities of the cliffs. Cows, sheep, and goats find in this southern clime a constant supply of green food upon the rocks, and every spot of fertile soil is filled with wild and cultivated fruit trees. In the war which broke out between Britain and Spain, in 1779, the last attempt was made for the recovery of Gibraltar. (See *Eliott*.) It was secured to Britain by the peace of 1783. Since that time, in the various British and Spanish, and also French wars, Gibraltar has only been blockaded on the land side.

The town of Gibraltar stands not on the promontory, but at its foot, and on the north-west side. Its bay is nine miles long and five broad, and forms a convenient naval station. Though fortified in itself, its chief protection is derived from the batteries on the neighbouring heights, which sweep both the isthmus, and the approach to the town by water. The last siege displayed the power of artillery in every shape. The town was then almost entirely destroyed; but it was afterwards rebuilt, on an improved and much enlarged plan. The houses have flat roofs, and large bow windows: they are generally painted black, with a white strip to mark each story or floor: the black is intended to blunt the dazzling rays of the sun. One large street traverses almost the whole town: it is nearly half a mile in length, and full of shops. In other parts, the inhabitants are too much crowded, as was fatally exemplified in the rapid spreading of the contagion in 1804. The population of the town, exclusive of the garrison, is above 12,000, partly British, partly Spaniards, Italians, Jews, and even Moors, all attracted by mercantile enterprise. The place is a general *entrepot* for the manufactures of Britain, and other produce, such as sugar, rum, tobacco, rice, flour, wine, fruits, silk, and wax. The chief public buildings are the navy hospital, the victualling office, the barracks, and the house of the lieutenant-governor. The places of worship are an English church, a Catholic chapel, and three synagogues. Here is also a small but elegant playhouse; and, what is of great importance to officers stationed in this secluded spot, a garrison library. 16 miles N. Ceuta, 70 S. Seville.

Gibraltar, Straits of, form an entrance from the Atlantic into the Mediterranean. The narrowest part is a little to the west of Gibraltar, and fifteen miles across. The ancients called them *Gaditanum* and *Herculaneum Fretum*, or *Straits of Hercules*. A strong and constant current flows into the Mediterranean from the Atlantic ocean, in the middle of the straits, while two feeble lateral currents issue from the sea. But if an anchor be cast in the straits, a lower current is found to prevail, setting out into the ocean.

GICHTEL, John George; a mystic and fanatic, born in 1638, at Ratisbon, in Germany. In his sixteenth year, he pretended to have divine visions. He then studied law, and seemed to have forgotten his visions in his professional activity; but he afterwards resumed his pretensions, owing, perhaps, to domestic troubles, the consequence of an unhappy marriage. He renounced his fortune, and went to join Brekling, a similar fanatic in Holland, in order to fit himself

for the duties of a missionary to America. He then returned to the south of Germany, but, his doctrines having produced great disturbances at Ratisbon, he was carried beyond the frontiers, and went to Vienna. Thence he returned to Holland. Here he had some misunderstanding with Brekling, and was banished from several places. Many of his followers, also, became opposed to him, on the ground that he promoted idleness, by preaching entire dependence on divine providence; and, having depended on them for support, was soon reduced to the greatest misery, and is said to have attempted several times to destroy himself. He died at Amsterdam in 1710. Two years before his death, he is said to have lost two nails of his right foot, in the place of which, grew out a sort of claws, which he considered to be eagle's claws, and indications of the approaching breaking out of the spirit. Gichtel wrote several works, which were published by himself or his pupils. His followers call themselves the *Angelic Brethren*. It would have been unnecessary to notice this obscure fanatic, had not mysticism made so much progress in Germany, that even Gichtel's works have been drawn from a merited oblivion.

GIDEON (*Hebrew*, meaning *a destroyer*); the son of Joash, of the tribe of Manasseh, divinely called to deliver the Israelites from the oppression of the Midianites. Having effected their deliverance, he was chosen judge of Israel. (See *Judges* vi, vii, viii.)

GIEBICHENSTEIN; a village on the Saale, half a league from Halle, with 550 inhabitants. Being so near that ancient university, charmingly situated, distinguished by the ruins of an ancient castle, which is connected with many historical reminiscences, Giebichenstein has, with the Germans, a kind of classical dignity. Whoever has studied at Halle, remembers some happy hours spent at Giebichenstein.

GIESSEN; capital of the principality of Upper Hesse, belonging to Hesse-Darmstadt, on the Lahn; 50° 25′ N. lat., 8° 43′ E. lon., with 5500 inhabitants. A university was founded here in 1607. Its scanty funds, the vicinity of the university of Marburg, and the division of the territory of Hesse-Darmstadt, have prevented it from ever having much over 500 students. The annual income is now about 60,000 guilders. The library has 27,000 vols. In 1823, there were twenty-two ordinary and five extraordinary professors, and eleven unofficial lecturers.

GIFFORD, William; a celebrated critic and satirist, the founder, and for a considerable period the editor, of the Quarterly Review. He was born at Ashburton, in Devonshire, in April, 1756. His father, a plumber and glasier, having dissipated his property by extravagance and intemperance, died when the son was about twelve years old; and William fell under the guardianship of a person who sent him to sea with the master of a coasting vessel, but in a few months removed him from that situation, and apprenticed him to a shoemaker at Ashburton. Disgusted with this occupation, and possessing a strong taste for study, he was fortunate enough to attract the notice of Mr Cookesley, a surgeon of the town in which he resided, who raised a subscription to purchase his freedom for the latter part of the term of his indentures, and to pay for his education. After having passed two years at school, he was, through the exertions of the same friend, supplied with the means of continuing his studies at Oxford, where he also obtained the office of Bible reader, at Exeter college. While at the university, he undertook a poetical translation of the Satires of Juvenal, but the death of his patron, Mr Cookesley, interrupted the progress of the work; and, at length, through a fortunate accident, he was introduced to earl Grosvenor, and quitted Oxford to reside in the family of this nobleman. He afterwards travelled on the continent, with lord Belgrave, for some years, and, on his return to England, settled in the metropolis, devoting his time to literary pursuits. In 1791, he published The Baviad, a poetical satire; and, in 1794, appeared The Maviad, a severe animadversion on the degraded state of the drama. These works, though virulent and coarse, display much critical ability. In 1797 he became editor of the Anti-Jacobin newspaper—an office which involved him in a quarrel with Peter Wolcot, against whom he published a pamphlet in verse, entitled An Epistle to Peter Pindar. His translation of the Satires of Juvenal was published in 1802, and is executed in a manner highly creditable to his abilities. His next publication was an edition of the plays of Massinger, with notes, and a life of that dramatist; and he afterwards edited, in a similar manner, the works of Ben Johnson, Ford, and Shirley. In 1809, he commenced the publication of the Quarterly Review, of which he continued to be conductor till 1824, when the infirmities of age obliged him to resign. His death took place, December 31, 1826, at his residence at Pimlico, near London, and he was interred on the 8th of January following, in Westminster abbey. Besides the works already noticed, he was the author of a translation of the Satires of Persius. He enjoyed an annuity from lord Grosvenor, and held the office of paymaster of the band of gentlemen pensioners, with a salary of £300 a year; he was also, for a time, comptroller of the lottery, with a salary of £600 a year.

GIG. See *Boat*.

GIGLI, Jerome, was born at Sienna, Oct. 14, 1660. His lyric and dramatic productions met with universal success. His modified translation of the Tartuffe, his attacks upon the academy Della Crusca, and his caustic wit, applied to such a variety of subjects, and so many people, involved him in difficulties. He was compelled to retract, at Rome, all he had said; and he died, Jan. 4, 1722, so poor that the expenses of his burial were defrayed by some charitable monks. A short time before his death, he burned many of his smaller writings, the overflowings of his bitter humour. The works which he has left are numerous, and part of them very spirited and witty. This is particularly the case with some fictitious historical and biographical memoirs, which even deceived Apostolo Zeno, who gravely noticed them, as authentic works, in the *Giornale de' Letterati d'Italia*. The character of Gigli was frank and bold, and opposed to all hypocrisy and pretence. As a member of the Arcadians at Rome, he bore the name of *Amaranto Sciatidico*.

GILBERT, Sir Humphrey; an English navigator and maritime discoverer, in the reign of queen Elizabeth. He was born in Devonshire, about 1539, and studied at Eton and Oxford. Adopting the military profession, he served with reputation on various occasions. Possessing a strong propensity for speculation and enterprise, he turned his attention to a scheme for exploring the Arctic seas, relative to which he published A Discourse of a Discovery for a new Passage to Catala (1576; reprinted in Hakluyt's collection of voyages, vol. iii). In 1578, Sir Humphrey Gilbert obtained from the queen a patent, empowering him to discover and colonise in North America any land then unsettled. He made a voyage to Newfoundland, but soon returned home unsuccessful. In 1583, he sailed again with a small fleet, and, having landed on Newfoundland in the beginning of August, he took possession of the harbour of St John's. Shortly after, he embarked in a small sloop to explore the coast, and was lost in a storm.

GILBERT; the name of two French poets:

1. Gabriel Gilbert, lived in the seventeenth century, was a contemporary of Corneille and Racine, whom he preceded in his dramatic writings, which are, however, thrown into the shade by theirs, though it appears that these two great poets were not ashamed to borrow from him. He was secretary to the duchess of Rohan; then lived with Christina, queen of Sweden, who was wont to call him *mon beau génie*, appointed him Swedish resident at the court of France, and loaded him with favours. After the death of Christina, and after his pieces had ceased to please the public, he sunk into poverty and oblivion. Besides a great number of poems, we have fifteen dramatical pieces of his. Cardinal Richelieu allowed some of his own verses to be inserted in his tragedy of *Téléphonte*. Gilbert also wrote an Art of Love, in imitation of Ovid.

2. Nicholas Joseph Gilbert, born in 1751, was inclined to satire; and some French critics call him the *French Juvenal*. He joined the party who opposed the *philosophers*, so called, with zeal. His satires, The Eighteenth Century, which he addressed to Fréron, and My Apology (in 1778), contain passages so striking and powerful, as to remind us of the Roman satirists. There is a collection of his poems, in two volumes. He died, deranged, in 1780.

GILD; a corporation. See *Guild*.

GILDAS, Sapiens; a British ecclesiastic and historian of the sixth century, of whom little is known. There is extant a declamatory diatribe ascribed to Gildas, which has been repeatedly published under the title of *Epistola de Excidio Britanniæ, et Castigatio Ordinis Ecclesiastici*. This is a violent invective against the whole British nation. Some doubts have arisen as to the authenticity of this epistle, the unsparing severity of animadversion with which the Britons are treated being considered as more characteristic of a foe to their race and nation, than of the alleged author.

GILDING is the art of applying gold leaf or gold dust to surfaces of wood, stone, metals. The Egyptian monuments present numerous traces of the existence of the art in Egypt. The process was nearly the same with that now used. The artists employed a sort of paste, like that now used in gilding wood, even for gilding metals; but they were also acquainted with the art of applying the gold directly to the substance to be gilt. The Persians were also acquainted with this art, as appears from the ruins of Persepolis. The Greeks and Romans employed gilding for many purposes. The Greeks used to gild the hoofs and horns of victims. The practice of gilding statues prevailed in the infancy of the art of sculpture, and was never entirely dropped by the ancients. The Romans used to gild sweetmeats; and many articles of furniture and utensils which have come down to us are gilt. There are also specimens of gilt glass and metals. The gilding, which still remains on some ancient bronze monuments, is remarkable for its brilliancy. This is owing, in part, to the great accuracy of the finish, but in part to the thickness of the leaf, which was much greater than that of the leaf used by the moderns. Besides, we must consider, that, in the most common way of gilding brass with an amalgam of gold and quicksilver, the gold is reduced to a state of much greater subdivision than in the leaf—the only state in which the ancients employed it. The account of Pliny shows that they did not fix the leaf merely by the aid of fire, as is now done in gilding metals, but that they first covered the substance with quicksilver, which was then evaporated by heat, in a manner somewhat similar to the modern practice of gilding with amalgam. The ancients carried the practice of gilding to a greater extent than the moderns; they gilded almost all their statues of bronze, wood, or plaster, and frequently those of marble, the ceilings of rooms, and even marble columns, eatables, and victims. The *bracteatores*, or *inauratores*, were in high esteem among them, and enjoyed an exemption from taxes. In architectural ornaments, gilding may please the eye, either from its appearance of richness, or merely from its agreeable colour. The most remarkable examples of gilding, employed with taste and effect in architecture, are the ceiling of St Peter's, and that of Santa Maria Maggiore. But artists often fall into the error of mistaking richness of appearance for beauty. The art of gilding, at the present day, is performed either upon metals, or upon wood, leather, parchment, or paper; and there are three distinct methods in general practice; namely, *wash*, or *water gilding*, in which the gold is spread, whilst reduced to a fluid state, by solution in mercury; *leaf gilding*, either burnished or in oil, performed by cementing thin leaves of gold upon the work, either by size or by oil; *japanner's gilding*, in which gold dust or powder is used instead of leaves. Gilding on copper is performed with an amalgam of gold and mercury. The surface of the copper, being freed from oxide, is covered with the amalgam, and afterwards exposed to heat till the mercury is driven off, leaving a thin coat of gold. It is also performed by dipping a linen rag in a saturated solution of gold, and burning it to tinder. The black powder thus obtained is rubbed on the metal to be gilded, with a cork dipped in salt water, till the gilding appears. Iron or steel is gilded by applying gold leaf to the metal, after the surface has been well cleaned, and heated until it has acquired the blue colour, which at a certain temperature it assumes. The surface is previously burnished, and the process is repeated when the gilding is required to be more durable. It is also performed by diluting the solution of gold in nitro-muriatic acid, with alcohol, and applying it to the clean surface. This last process has been improved by Mr Stoddart. A saturated solution of gold in nitro-muriatic acid, being mixed with three times its weight of sulphuric ether, dissolves the muriate of gold, and the solution is separated from the acid beneath. To gild the steel, it is merely necessary to dip it, the surface being previously well polished and cleaned, in the ethereal solution, for an instant, and, on withdrawing it, to wash it instantly by agitation in water. By this method, steel instruments are very commonly gilt.

GILEAD, The mountains of, in ancient geography; part of the ridge which runs south from mount Lebanon, on the east of Palestine. They gave their name to the whole country which lies on the east of the sea of Galilee, and included the mountainous region, called, in the New Testament, *Trachonitis*.

GILES, St (*St Ægidius*); a native of Greece, who lived in the sixth century, and was descended from an illustrious family. He gave all his property to the poor, and went to France, where he worked miracles, and founded a convent. He is still revered in that country. A relic of this saint was carried to Scotland, and bequeathed, under James II., to the church of Edinburgh: hence he became the patron of that city.

St Giles is the name of a parish in London, so called from the church of St Giles. It is the resort of poverty and wretchedness, and a greater contrast can hardly be found than that formed by the west end of the metropolis, the richest spot in the world, and St Giles, one of the most wretched. There is another church of St Giles, called *St Giles Cripplegate*, which contains the tomb of Milton, whose

monument was erected by the sculptor Bacon, at the expense of the late lord Whitbread.

GILOLO; one of the Molucca islands, in the East Indian ocean, about seventy leagues long, and 200 in circuit, but little known. It is said that the air is very hot and unwholesome, and that the country is very fertile in rice and sago. The inhabitants are represented to be well made, but savage and cruel, living without laws or fixed habitations. It neither bears cloves nor nutmegs. The equinoctial line runs through the southern part of it. Lon. 128° E.

GILRAY. See *Caricature*.

GIMBALS; the brass rings by which a sea compass is suspended in its box, so as to counteract the effect of the ship's motion, and keep the card horizontal.

GIMLE. See *Northern Mythology*.

GIN. English gin, or geneva, is made of spirit obtained from oats, barley, or malt, rectified or redistilled, with the addition of juniper berries, oil of turpentine, &c. See the article *Spirits*.

GIN, COTTON. See *Cotton*.

GINGER (*amomum zingiber*) is an East Indian plant, belonging to the natural order *cannæ*. The root is of the size of a finger, knotty, creeping, and produces three or four sterile stems, about two feet high, which are provided with lanceolate leaves, seven or eight inches in length, disposed alternately on two opposite sides of the stem, and nearly horizontal. The flowering stems are situated at some distance from these, and are covered with membranous scales, of which the superior ones are largest, and each envelopes a flower. It grows in moist places in various parts of tropical Asia and the East Indies, and has been cultivated to some extent in the West Indies, particularly in Jamaica. The root has an aromatic, pungent taste, and is much used by the inhabitants as a condiment, and sometimes, when green, and mixed with other herbs, as a salad. It is also candied, and makes an excellent preserve. It is used medicinally, as a carminative, and in debility of the stomach and alimentary canal. Ginger was known to the Romans during the time of the emperors, and is described in Pliny as being brought from Arabia.

GINGUENE, Peter Louis, born at Rennes, in Brittany, in 1748, was descended from an ancient but impoverished family. He early acquired the ancient and living languages with great facility, and discovered much taste for painting, poetry, and music. At Paris, he was obliged to divide his time between labours in one of the *Bureaux du Contrôle Général* and his studies. His punctuality and skill in the duties of his office, and free and elegant penmanship, acquired him the esteem of his employers; and an anonymous poem, *Confession de Zulme*, inserted in the *Almanach des Muses*, gained him reputation. He studied the foundations of the French language in the old grammarians and poets, especially in Rabelais and Malherbe. Both writers were his favourites, especially the last. In the contests between the partisans of Gluck (q. v.) and Piccini (q. v.), he took the side of Piccini and the Italian music, the more zealously, as he was Piccini's particular friend. In his notice, however, of The Life and Works of Nicholas Piccini (Paris, 1800), notwithstanding all his predilection for Piccini, he recognised Gluck as a man of taste and science. A poem upon the death of prince Leopold of Brunswick, and a eulogy upon Louis XII., were rewarded with prises by the academy, and met everywhere with a favourable reception. His letters upon the Confessions of Rousseau (*Lettres sur les Confessions de J. J. Rousseau*, Paris, 1791, translated into English, London, 1792) attracted much attention. By the rigid impartiality with which he examined his life, he did more for his defence, than would have been effected by the most laboured panegyric. The revolution, in which he took an active part, as a friend of liberty, brought him into a wider circle of literary and official labour. Without neglecting his studies, to which belonged his contributions to the *Moniteur* and the *Mercure de France* (1790—2), his labours upon the *Dictionnaire de Musique*, in company with Framery (Paris, 1791, and 1815, 4to), as a part of the *Encyclopédie Méthodique*, and his contributions to a *Nouvelle Grammaire raisonnée*, he associated himself with the more moderate and judicious writers upon the affairs of the times, by his share in the *Feuille Villageoise* (1st and 2, in company with Grouvellé, and, in 179[illegible], alone), and also by commencing and editing, from 1794 to 1807, the *Decade Philosophique Littéraire et Politique*, 54 vols. (called *Revue* after 1805.) The *Decade* neither sounded the trumpet for Robespierre in the commencement, nor for Bonaparte afterwards, and was one of the few journals kept up through the whole revolution without loss of reputation. He was not less industrious in the duties of his office as director-general of the public schools, and, after resigning this office in February, 1798, as ambassador to the court of Turin. On his return, he became a member of the tribunate. But as he esteemed it his duty to oppose some of the regulations of the government, he was one of the tribunes rejected by the senate in 1802. He then commenced the valuable work, to which he is chiefly indebted for his fame—his *Histoire Littéraire d'Italie*, of which volumes, 1—6 were published at Paris, 1811—13, and volumes 7—9 after his death, in 1819. Tiraboschi, in his inquiries had in view, rather the particulars than the general subject; Ginguené, on the other hand, endeavoured to illustrate the general course and history of Italian literature, from the time of Constantine to the eighteenth century. He draws from the sources, and writes, generally, without prejudice. There is nothing splendid, either in the thoughts or style; but we are captivated by the unpretending, strong sense which prevails in the whole work, by his striking characters of individuals, and by his noble language, notwithstanding a certain monotony. Besides his labours as a member of the institute, the sessions of which he regularly attended, he wrote many Fables, chiefly after Italian models (Paris, 1810—14), translated Catullus' Marriage of Thetis and Peleus into French verse (Paris, 1812), and contributed a good deal to the *Biographie Universelle*, and to the 13th and 14th volumes of the *Histoire Litteraire de la France*. A fortunate independence, happy domestic relations, and the respect of the best of his countrymen, shed happiness upon the evening of his life. He died at Paris, Nov. 16, 1816. Besides producing the writings above mentioned, and some small pamphlets, he edited the works of Chamfort (Paris, 1795, 4 vols.), and of Lebrun (Paris, 1811, 4 vols.), and prepared the text of numbers 14—25 of the *Tableaux de la Révolution Française*. The catalogue of his library is important, on account of his great collection of Italian books. This collection was purchased entire for the British museum in London.

GINSENG. The root of this plant has been celebrated for a long time among the Chinese, entering into the composition of almost every medicine used by the higher classes; and, indeed, so highly is it prised as to have received the appellations of "pure spirit of the earth" and "plant that gives immortality." Volumes have been written on its virtues, and recourse is had to it in every difficulty. The plant, which is the *panax quinquefolium* of botanists, is herbaceous, about a foot high, upright, and very simple, furnished above with three petiolate leaves,

sposed verticillately: these leaves are composed of e unequal leaflets, which are oval lanceolate, acute id dentate on the margin: from the centre of the three aves arises a peduncle, terminated by a small umbel greenish inconspicuous flowers, which are succeed- by rounded and slightly compressed scarlet berries. is said to be a native of Tartary, growing wild in mountainous and wooded region between lat. 39° id 47°, where it is collected with many precautions y the Chinese and Tartars, at the commencement spring and in the latter part of autumn, and is so re as to bring three times its weight in silver. An rly traveller relates that the emperor of China mployed, in one year, 10,000 Tartars in procuring is root. From China it is imported into Japan, here it was obtained by the Dutch, who first rought it to Europe. Notwithstanding the extra- agant price and high reputation of ginseng in China, t appears to be, really, a plant of very little efficacy; he taste is sweet and mucilaginous, accompanied with some bitterness, and also slightly aromatic. The same plant, at least it is so considered by botan- ists, inhabits America, chiefly upon or in the vicinity of the Alleghany mountains, and has been exported to China, in such quantities as to reduce the price very much. The *P. trifolium*, another species of ginseng, inhabits Canada and the north-eastern parts of the United States, and is distinguished from the former by its smaller stature and ternate leaves.

GIOJA, Flavio, by some called also *Gira* and *Giri*, a navigator of Pasitano, a village in the vicinity of Amalfi, lived at the end of the thirteenth and the beginning of the fourteenth centuries. He was long considered as having first applied the loadstone to the purposes of navigation, and therefore as the inventor of the compass. Later inquiries upon this subject have proved that European navigators of the twelfth century made use of the compass or magnetic needle. The merit, therefore, of the navigator of Amalfi can only be that of having perfected what was already invented, which, however, is enough to entitle him to the gratitude of posterity. Till his time, the needle was laid upon a couple of pieces of straw, or small split sticks, in a vessel of water, and thus pointed out the parts of the heavens; but this instrument must evidently have been unserviceable, except when the sea was still, and the vessel without much motion. Gioja introduced the improvement of suspending the needle in such a manner, that it will point north under all circumstances; and the importance of this fact may be inferred from this, that the whole nautical science assumed, from this moment, a new form, and the vessels, which before rarely left sight of the coast, now launched out upon the wide ocean. Thus Gioja may be considered the father of modern navigation; and posterity is indebted to him for the advantages it derives from it. His discovery has subsequently been much improved. See *Compass*, and *Magnetic Needle*.

GIORDANO, Luke, a painter, born at Naples, 1632, a scholar of Spagnoletto, went to Rome to study the great Italian masters, and became the pupil of Peter of Cortona, whom he assisted in his great works. Paul Veronese had afterwards a great influence on his manner. He imitated the greatest masters so well that even connoisseurs were imposed upon. He acquired the name of *Luca fa presto*, on account of the incredible celerity of his execution, or, more probably, because his father, from avarice, often urged him, by this phrase, to expedition. He was rich in invention; his colouring was soft and harmonious, his pencil free and rapid, and he was well grounded in perspective. He was much employed at Naples, after his return. In 1679, he was employed, by Charles II., to ornament the Escurial. He was of an ardent temperament, and amused the court with his sallies. The queen once expressed a wish to see his wife. The painter executed a portrait of her on the spot, and showed it to the queen, who was so delighted with it, that she took off her pearl necklace, and sent it to the wife. The king once showed him a piece by Bassano, and expressed much regret at not possessing the pendant. A few days after, Giordano showed him a picture, which the king took to be by Bassano, and for a long time continued to do so, till our painter made himself known as the artist. Besides this picture, he also executed two other pieces, in imitation of the style of that painter, which are in the Carthusian convent at Naples. There is also in the same convent, a piece in which he imitated the manner of the chevalier Maximo Stansioni. After the death of Charles II., he returned to his native country, where he died, 1704. His most celebrated pieces are his frescos, in the Escurial, at Madrid, Florence, and Rome. Some of his finest paintings are in the gallery at Dresden. His works are too numerous to have allowed him time for careful study: few are therefore without faults.

GIORGIONE DI CASTELFRANCO, properly GIORGIO BARBARELLI, born, in 1477, at Castelfranco, in the Venetian territory, is one of the most celebrated painters of the Venetian school. His master was Giovanni Bellini, who dismissed him from envy of his merits. In Venice, he ornamented the façades of several large buildings, as was the fashion at that period, with frescos, which have mostly perished. He found in Titian a formidable rival in this branch of his art. His portraits are reckoned among the finest of the Italian school. In order to decide practically the dispute concerning the superior of the two imitative arts, he painted, according to Vasari's account, a naked figure, of which the back was to the spectator, and the front represented as seen in a clear fountain. Upon a polished cuirass, which lay on one side, was the left profile, while the right was reflected from a mirror upon the opposite side, that he might show, in this way, that painting deserves the preference to sculpture, since it can exhibit more parts of the body in a single view. His pieces are rare. At Milan, and in the galleries at Vienna and Dresden, some are to be seen; and the ducal palace at Brunswick and the gallery at Pomersfelden have each one of his pictures. He died in 1511. His school is distinguished by truth of colouring.

GIOTTO. This celebrated painter, and friend of Petrarch, was named *Ambrogiotto Burdone*. Being the son of a peasant in the Florentine village of Vespignano (born, according to Vasari, in 1276, according to Baldinucci, in 1265), he was employed in tending cattle. But having been once seen by Cimabue, as he was drawing figures of his sheep upon a piece of slate with a stone, that artist obtained leave from his father to take him with him, carried him to Florence, and taught him painting. His natural talent, and especially the gracefulness so peculiar to him, developed themselves so rapidly, that he became a master in a short time, and soon surpassed all contemporary artists. He represented human figures in his pieces with truth and nature, and surpassed all others in the dignity of his figures, a pleasing arrangement of them, and a regard to correct proportions and natural disposition of the drapery. His figures have more life and freedom than those of his predecessor, Cimabue, as he particularly avoided the stiff style. Among his most celebrated pieces is the Navicella (ship), at Rome (a picture of Peter walking upon the waves, in Mosaic), some fresco paintings at Florence (the crowning of the holy virgin, in the

church of Santa Croce, and the burial of the virgin, so much admired by Michael Angelo and Mengs), also the history of St Francis, at Assisi, and several miniatures. This extraordinary man was equally successful as a statuary and architect. He died in 1336, and left numerous scholars.

GIPSY. *See Gypsy.*

GIRAFFE. *See Camelopard.*

GIRARDON, Francis, statuary and architect, was born, 1628, at Troyes, in Champagne, and was a pupil of Laurence Mazière. After he had completed his studies with Francis Anguier, he acquired such celebrity, that Louis XIV. sent him to Rome, with a pension, to study the ancient and modern masters in the art. After his return, he ornamented the royal palaces with his works, both in marble and bronze. On Lebrun's death, he obtained the office of overseer of all the works in statuary. His works are remarkable for purity of design and beauty of arrangement. The most noted are the following: the splendid monument of cardinal Richelieu, formerly in the church of the Sorbonne, afterwards in the museum of the Petits Augustins; the equestrian statue of Louis XIV., which was his masterpiece, and which was thrown down and broken to pieces, August 12, 1792; the Rape of Proserpine, in the garden of Versailles; and the masterly groups which ornament the Apollo baths, also at Versailles. As he was too constantly occupied to work much himself on his marbles, he left this portion of the labour to artists, who, although respectable, had not the talents of their master. He died at Paris, 1715. His wife, Catharine Duchemin, painted flowers.

GIRODET, Trioson Nicholas, born in 1767, at Montargis, was the most original, versatile, and scientific of the modern school of French painters, and was a scholar of Regnault. He studied, while quite young, at Rome. He obtained the great prize among the pupils of David, at twenty-two years of age. A decided inclination to the ancient style and the fulness of statuary, is very perceptible in his works; but they are also distinguished for life, nature, and beauty. His drawing is correct, and of great precision; his colouring is rich, transparent, and harmonious. He works with equal care and genius. He loves to produce effect by strong lights, but they are in unison with the spirit of the pieces. The Endymion, which he painted while in Italy, is one of his finest pieces. His Hippocrates (engraved by Massard), is a beautiful specimen of *chiaro-scuro*. His Deluge is celebrated, and shows a spark of the gigantic genius of Buonarotti. His Attala, from Chateaubriand, is charming. He painted Napoleon receiving the keys of Vienna. His portraits are full of truth and strength. He painted, in 1824, the full length portraits of the Vendean leaders, Bonchamp and Cathelineau, the first from a miniature, and the latter from the features of his son, who resembled him. His last great picture represents Saint Louis in Egypt. He died at Paris, Dec. 9, 1824.

GIRONDE; a river in France, formed by the union of the Garonne and Dordogne, twelve miles below Bourdeaux. It runs into the Atlantic, after a course of about twenty-seven miles N. N. W. It gives its name to a department (see *Departments*), which has acquired celebrity from the *Girondists*. (q. v.)

GIRONDISTS (*les Girondins*), a republican party of an elevated character in the second French (legislative) assembly (1791—3), were distinguished for the abilities and eloquence of their most eminent speakers, and for their six months' fatal contest with the Mountain party in the national convention. They were called *Girondists*, because their leaders, Guadet, Gensonné, Vergniaud, with whom were connected about twenty ot
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Gironde. At their he
Guadet, one of the most
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Guadet and his associate
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and even proposed to app
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Girondists, were the most
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But they were soon compel
party, which had the Paris
to suffer the massacre of th
September, to take place u
republican spirit awaked an
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town of Longwy should be
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or royalists, and the Jacobin
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force of his talents, overthre
so that even his enemies wer
him. Guadet displayed him
he accused Danton and Ba
supporters of a far more da

of the Gironde. To refute the calumnies of their enemies, they also proposed that sentence of death should be decreed against any who should propose the recall of the Bourbons to the throne, and against the emigrants; they also moved the decree for the imprisonment of the duke of Orleans. At the king's trial, Guadet, Gensonné, and Vergniand voted for his death, after their proposal in favour of an appeal to the nation had been rejected. (Vergniaud's extemporaneous Appeal to the People is one of the most eloquent orations in the French language.) After the sentence of death was pronounced, Guadet made great efforts to delay the execution, and procured the fourth vote in that unfortunate trial. But their enemies were too powerful for them. They declined still more after they had the imprudence to propose a decree against Marat, on the 20th April. He was acquitted by the revolutionary tribunal, and the Mountain party thought that they might now venture to bring the leaders of the Girondists to the bar of the tribunal. The Jacobins, however, seeing that they should be unable to deprive the Girondists of their majority in the assembly, employed the sections of Paris, which made their appearance before the convention, and with tumultuous cries demanded the condemnation of the Girondists; but Guadet was triumphant both on this occasion and subsequently, when the whole commune of Paris repeated the demand. The mob of the suburb St Antoine and others were now induced to take arms, and the tocsin was sounded on the 31st of May, 1793. An armed mob surrounded the convention, while Hassenfratz, accompanied by a troop of pretended petitioners, and supported by their murderous cries, demanded the outlawry of twenty-two Girondists. At this decisive moment, Guadet took possession of the tribune, and his party seemed once more to triumph; but the resistance lasted only to the 1st and 2d June; the Jacobins, supported by a lawless mob, gained the superiority, and thirty-four Girondists were put under sentence of outlawry, and summoned to appear before the revolutionary tribunal. The greater number of the accused endeavoured to save themselves by flight to the western departments, where they hoped to raise the standard of rebellion against the assembly. This body, however, sustained by terror, which had become the great engine of government, advanced with steady steps to their object. The number of the proscribed was increased to fifty-three; sixty-six others, who had protested against the proceedings of the 1st and 2d June, were expelled from the assembly, and even imprisoned. Executions rapidly succeeded each other. Gorsas first suffered under the guillotine (Oct. 7, 1793), and, on the 31st, Brissot, Gensonné, Vergniaud, Silléry, and seventeen others. A few escaped, and among them Louvet, who published the occurrences relating to his proscription in a very interesting form, under the title of *Quelques Notices pour l'Histoire*, &c. Roland, Pétion, Condorcet, and others, killed themselves. Guadet was executed at Bourdeaux (July 17, 1794), at the age of thirty-five years, and soon afterwards his father, aunts, and brother, as relations of a person proscribed.

The Girondists were pure patriots, with the image of ancient republicanism and heroism before their eyes, as their speeches and measures show: they were animated by an elevated love of liberty, but their doctrine did not answer the urgent demands of so violent a period, when France, torn by civil discord, was threatened by powerful enemies from without. The struggle of the Girondists with the Mountain party, is one of the most interesting events in the French revolution. See Mignet's *Révolution Française*.

GIROUETTE (*French*, weathercock). In recent times, when political systems have succeeded each other in France with startling rapidity, many individuals of distinction have been found, of course, to turn with every political breeze, and a *Dictionnaire des Girouettes* has been published, containing the names of numerous public characters, with a number of weathercocks against each name, corresponding to the number of changes in the individual's political creed. The Nestor of the *girouettes* is probably Talléyrand, over whose name it would be sufficient to draw a few weathercocks and several points, as the mathematicians designate *ad infinitum*.

GIULIO ROMANO (properly *Giulio Pipi*); the most distinguished of Raphael's scholars and assistants. He was born at Rome, in 1499. During the lifetime of Raphael, he painted with him and under his direction, and his inclination for the terrible and violent was kept within proper limits; but after Raphael's death, he followed his inclination more freely. After having finished the great hall of Constantine at Rome, under Clement VII., he went to Mantua, not, as is generally supposed, to avoid the anger of the pope, on account of some indecent pictures sketched by him, and engraved by Raimondi (as these appeared later), but at the request of count Castiglione. He here found a wide field for the exercise of his powerful genius, both in architecture and in painting. The palace of the T was ornamented entirely by him, or by his scholars under his direction. The school which he here opened, made the principles of Raphael known in Lombardy. After the death of San Gallo, in 1546, the building of St Peter's was committed to him; but he died the same year. While he only aspired to follow his master, he showed himself judicious, graceful, and pleasing; but when he afterwards gave himself up to his own imagination, he astonished all by the boldness of his style, by the grandeur of his designs, by the fire of his composition, by the loftiness of his poetical ideas, and his power of expression. We admire all these qualities united in the fall of the Titans, in the palace of the T, and in the History of Constantine (at Rome). He is accused of leaving the study of nature for that of the antique style, of not understanding drapery, of a uniformity in his heads, and of a hardness in his colouring. On the other hand, no master has displayed more talent and science in his paintings. His most distinguished scholars were Raphael dal Colle, Primaticcio and Giovanni Battista Mantovano.

GIUNTI. This celebrated family of printers, called also *Juntæ*, *Junta*, *Juncta*, *Giunta*, and *Zonta*, originated not from Lyons, as has sometimes been supposed, but from Florence, where they appear as early as 1354. The branch of the family which still remains there, was elevated to the patrician rank by a decree of 1789. They were eminent as booksellers and printers, in the latter part of the fifteenth century; and their presses at Venice, Florence, Lyons, and later at Burgos, Salamanca, and Madrid, contributed, by the valuable works which issued from them, to the promotion of European civilization. The oldest of these presses appears to be that at Venice, established by Luke Antonio Giunti, who removed from Florence to Venice in 1480. At first, from 1482 to 1498, he only sold books, and had his printing done by other hands (*Catharina di Sienna Dialogo de la Divina Providentia*, Venice, Mthi. da Codeca, 1482, 4to). But, in 1499, he set up a press of his own, the first product of which was *J. Mar. Politiani Constitut. Ord. Carmelitarum*, 4to. His last impressions are dated 1537, the year of his death. The establishment was continued, after his death, under the name Hæredes L. A. de Giunta, then under the direction of his son Thomas, whose printing-

office was burnt in 1557. It was rebuilt, and continued under various masters till some time in the next century. In 1644, the heirs of Thomas Giunta appear, as partners in the house of Fr. Bala, and this connexion was still existing in 1648. The last publication known to be from the Venetian press, is in 1657 (*Hi. Ochi Lib. III., de Febribus*, Ven. apud Juntas, 1657). Their editions are not at all distinguished from the common Venetian editions of the time, and rank far below the best of Manucci, Giolito, and others. The Giuntine editions are neither distinguished for paper nor type, and seem not to have been intended to promote the cause of literature, but merely for pecuniary profit. The Venetian Giunti appear not to have published any editions in parchment. They also published but few Greek works. The edition of Cicero by Victorius, in 1534, is almost their only remarkable publication. Their missals are not without value. Philip Giunti, whose branch of the family was afterwards so celebrated, and who was son of one of the same name, and nephew of Luke Antonio, established himself in his native city of Florence. He probably enjoyed the instruction of Christopher Landino. He had a printing-office in Florence, and the first publication which issued from it was *Zenobius*, in 1497. After the death of Philip (1517), the establishment was continued by his heirs. The last work published at the Florentine office, seems to have been Buonarotti's *Rime* (1623). The types of this office need not fear comparison with those of Manucci; but are rather inferior in variety. Their italics might perhaps be preferred. But the paper, the ink, and the whole appearance of the editions of Aldus are better. The Florentine office also published some large paper editions, and some good editions in parchment. They probably possessed a type foundery, by which other contemporary printers in Florence were supplied. The Giuntine editions have not yet been thought worthy of being the subject of particular collections, although they appear to deserve it as much as the Aldine; and it has been quite too hastily concluded, that their editions were only republications of the Aldine texts. The intrinsic value of their editions is greater than is generally allowed. An accurate examination of the Italian authors, printed at this office, shows what great advantages the Giunti derived from the scholars, whom they, as well as the Manucci, knew how to collect around them. This commendation is less applicable, however, to the office at Lyons, founded by Jacob de Giunta, from Florence, son of Francis, who appears to have been at Venice in 1519, but is found in 1520 at Lyons, where he was first a publisher, and, after 1527, a printer. After his death, in 1548, the concern was continued by his heirs, of whom we find traces in 1592. The relations which subsisted between the Italian and Spanish offices, as also among these last, are not so easily explained. Juan Junta printed at Burgos, in 1526, 28 and 51; Philip, perhaps the same person with the Florentine Philip the younger, from 1582 to 93. Juan Junta is found as a printer at Salamanca, 1534—52, who, from all appearances, must have been the Juan Junta of Burgos, and, in 1582, Luke appears there also. We find Giulio Giunta at Madrid, in 1595, who died in January, 1618; and Thomas Junta or Junti, from 1594 to 1624, who appears to have been the royal printer in 1621. An index of the Giuntine editions, to 1550, may be found in Ebert's Biblical Lexicon.

GIUSTINIANI COLLECTION; a beautiful collection of paintings, which the king of Prussia bought, in 1815, at Paris. It is now, with a selection of the most beautiful pictures from the different royal palaces, in the magnificent museum, lately built by Mr Schinkel. These pictures were collected by a marquis Giustiniani, li
of the sixteenth centu
was carried to Paris,
sold it to M. Bonne
pictures belonging to i

GIVEN *is a term fr*
cian, to denote somet
Thus, if a magnitude
given magnitude. If the
it is *given in position*;
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circumference *gives* m
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tion. If the kind or sp
is said to be *given* in sp
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GIVET. *See Charle*

GIZEH; a city of Eg
Nile, three miles abov
10,000. The walls are
one gate to the country;
three thick; the palace
the Nile. Here is a can
are built of brick and clay
ornament than four or fi
and some palm trees.
pots are made here, and t
nish, of which the *Egypti*
use. Gizeh is chiefly dist
situated in its neighbourh
Cheops and Cephrenes,
in Egypt. According to
Memphis was situated her

GIZZARD. *See Stoma*

GLACIERS. The summ
above the limit of perpet
covered with a crust, whic
snow, yet not like common
on the sides of mountains th
this does not constitute
called. The glaciers are va
from the declivities of the
valleys, below the snow-lin
sontal, generally however,
of the glaciers is entirely di
sea and river water. *It*
but consists of little grains
hence, though perfectly cle
the surface, it is not transpa
radiated, like that of sea ice
numerous fissures, however,
has a greenish, near the bott
the edges of the glaciers, ar
are called in Savoy (in Iceland
consist of an accumulation
several fathoms high, and,
appearance of bottomless
vegetation. It is probable
produced by the melting of
glacier, which always takes
which the annual accumulat
would form an endless crust
are also continually extending
valleys, where, in summer, th
melted by the warmer tem
where the sun has less power
the region of the Suliteima,
cool, that the line of perpetu
as 3000 feet above the level
of the glaciers, which is assis
avalanches, is greater or less
nation of the glacier. This
in the position of large ma
glaciers. They are evidently

ad, near the Grindelberg, in Switzerland, it has been und, by examination, that stones have been pushed rward twenty-five feet in one year. Stones of conderable bulk are also seen in the *moraines* of an ntirely different formation from those of the valley, ad must therefore have been pushed down from the igher regions in the course of time. As glaciers, in ome positions, and in hot summers, decrease, they hen also increase for a number of years so as to ender a valley uninhabitable. Their increase is aused partly by alternate thawing and freezing; heir decrease, by the mountain rivers, which often low under them, and thus form an arch of ice over the torrent. Streams are seen at the bottom of the deepest fissures, which, in the Helvetic Alps, are called *dust or powder avalanches*, because they consist of newly fallen snow, which is carried by the wind into the depths. There are also, particularly in the Norwegian Alps, *dirt avalanches*, so called, which carry along stones and earth with them, and increase the *moraines* of the glaciers. In the Tyrol, Switzerland, Piedmont and Savoy, the glaciers are so numerous that they have been calculated to form altogether a superficial extent of 1484 square miles. There are some glaciers, in Savoy, more than fourteen miles long, two and a fourth miles wide, and from sixty to 600 feet thick. One of the most famous glaciers is the *mer de glace* (sea of ice) in the valley of Chamouni, about 5700 feet above the level of the sea. In France, near Beaume, and in the Carpathian mountains, near Dselits, are subterraneous glaciers, which never melt, because the sun cannot act upon them. From this account, it is evident that there can be no glaciers in the Andes, because the temperature continues the same the whole year between the tropics. The noise which is produced by the opening of fissures in the glaciers is immense, and resembles thunder among the mountains. These fissures are often immediately covered with snow, and are therefore very dangerous to travellers. See *Avalanches*.

GLACIS, in fortification, is the sloping covering of the outer breastwork along the covered way, which descends to the level ground, and covers the ditch upon the outside. It must be so placed, that the guns of the fort will rake it at every point.

GLADIATORS were combatants, who fought at the public games, in Rome, for the entertainment of the spectators. They were at first prisoners, slaves, or condemned criminals; but afterwards freemen fought in the arena, either for hire, or from choice. The regular gladiators were instructed in schools intended for this purpose. The overseer of this school purchased the gladiators, and maintained them. They were hired of him by those who wished to exhibit games to the people. The games were commenced by a *prælusio*, in which they fought with weapons of wood, till, upon a signal, they assumed their arms, and began in earnest to fight in pairs. In case the vanquished was not killed in the combat, his fate was decided by the people. If they decreed his death, the thumb was held up in the air: the opposite motion was the signal to save him. In general, they suffered death with wonderful firmness, and the vanquished often exposed himself to the death-blow. If he wished to appeal to the people, he raised his hand. When a gladiator was killed, attendants, appointed for the purpose, dragged the body, with iron hooks, into a room destined for this purpose. The victor received a branch of palm, or a palm garland. The gladiators were often released from further service, and received as a badge of freedom, a wooden sword (*rudis*.)

The following cut represents two armed gladiators from a painting at Pompeii:—

The first wears a helmet, having a visor, with the long buckler or scutum. Like other gladiators, he wears the *subligaculum*, a short apron fixed above the hips by a girdle of bronze or embroidered leather. On the right leg is a kind of buskin made of leather, and on the left a greave. The left leg was best protected, because that side of the body was most exposed by the ancients, whose guard, on account of the buckler, was the reverse of the modern guard. The rest of the body was quite naked. The second figure has a smaller buckler, but is better protected by thigh pieces formed of plates of iron, and on each leg the high greave. In another painting found at Pompeii (a cut of which is here given), the figures are more lightly armed. One of them has fallen wounded, and the conqueror awaits the answering sign from the spectators, whether to spare his antagonist or strike the death-blow.

We refer the reader to Bulwer's "Last Days of Pompeii," which gives a very graphic description of the combats of gladiators, and furnishes also a spirited view of the character of these unhappy men.

Gladiatorial Statues. The most celebrated gladiatorial statues are—1. The gladiator Borghese, which Winckelmann considered to be the statue of a warrior, or of a caster of the discus. Lessing thought it the statue of Chabrias; Nibby supposed it to be the statue of a Gaul, from the acroterium of the temple of Apollo at Delphi, which had been placed there in commemoration of the defeat of the Gauls before the city. It is a combatant, with extended arm, in the act of warding off a blow. It is a statue of the first rank, made of fine grained marble, and is now in the capitol, to which it was restored from Paris, 1815. 2. The dying gladiator, purchased from the Ludovisian collection for the Museum Capitolinum. It is a dying warrior, according to Zoega, a barbarian, who has received a wound in his breast, and is in the act of falling, with an expres-

sion of rage. The mustachios and the rope on the neck are perhaps the work of a modern artist, Michael Angelo. Every reader will remember Byron's affecting verses on this statue :—

I see before me the Gladiator lie :
He leans upon his hand—his manly brow
Consents to death, but conquers agony,
And his drooped head sinks gradually low—
And through his side the last drops, ebbing slow
From the red gush, fall heavy, one by one,
Like the first of a thunder-shower ; and now
The arena swims around him—he is gone
Ere ceased the unhuman shout which hailed the wretch who won.

He heard it, but he heeded not—*his eyes*
Were with his heart, and that was far away ;
He recked not of the life he lost nor prize,
But where his rude hut by the Danube lay ;
There were his young barbarians all at play,
There was their Dacian mother—he their sire,
Butchered to make a Roman holiday—
All this rushed with his blood—Shall he expire
And unavenged?—Arise, ye Goths! and glut your ire!

GLAIR OF EGGS is the same as the white of eggs, used as a varnish for preserving paintings. For this purpose, it is beat to an unctuous consistence, and commonly mixed with a little brandy or spirits of wine, to make it work more freely, and with a little lump sugar, to give it body, and prevent it cracking, and then spread over the picture with a fine elastic brush.

GLAMOUR, or GLAMER ; an old term of popular superstition, in Scotland, denoting a kind of magical mist believed to be raised by sorcerers.

GLANVIL, or GLANVILLE, RANULPH DE ; an English baron of the twelfth century, celebrated as a lawyer and a warrior. He was of Norman descent ; and, in the reign of Henry II., held the office of justiciary of the kingdom. It was at that period that he signalised his valour in repelling the invasion of England by William, king of Scotland, who was taken prisoner as he was besieging the castle of Alnwick. Richard I., after his accession to the crown, is said to have imprisoned Glanvil, and obliged him to pay for his freedom the sum of £15,000 towards the expenses of a crusade to the Holy Land. The aged magistrate accompanied his master on the expedition to which he had so largely contributed, and perished together with a vast multitude of other English warriors, at the siege of Acre, in 1190. To judge Glanvil is attributed a curious treatise on the laws and customs of England, which was first published in 1554. A translation by John Beames, of Lincoln's Inn, appeared in 1812, with a life of the author.

GLARUS, one of the smallest cantons of the Swiss confederacy, the seventh in rank, surrounded by the cantons of St Gall, the Grisons, Uri, and Schweitz, contains 445 square miles, with 24,000 inhabitants, of whom 4000 are Catholics, the others Calvinists. On all sides, except towards the north, Glarus is walled in by glaciers and mountains covered with snow. The river Linth flows through it. In 1352, it joined the Swiss confederacy. The inhabitants are distinguished for their industry. Merino sheep have recently been introduced into this canton, and the quality of the wool has by this means been considerably improved. Large quantities of cheese are annually exported from this canton to various parts of Europe. The constitution is a pure democracy. The capital,

Glarus, situated on the Linth, has 4000 inhabitants. It lies at the foot of the Glarnisch, a mountain 9500 feet high. It contains a Catholic church, several schools, considerable manufactories, &c. The green cheese, called *Schabzieher*, is made here. Four miles below Glarus, on the Linth, is Nafels, where the inhabitants twice defeated (1352 and 1388) superior numbers of Austrians.

GLASGOW, a city of Scotland, in Lanarkshire, the most populous in the kingdom, and distinguished for the extent of its manufactures and commerce, is situated on the banks of the river Clyde, near the north-western extremity of the above shire, in 55° 51′ 32″ north latitude, and 4° 17′ 54″ west longitude ; distant from Edinburgh 42 miles ; from Aberdeen, 144 ; from Manchester, 213 ; from London, 397 ; and from Dublin 196 miles.

[As this Encyclopedia is the first work of the kind published in Glasgow, we may be excused for giving a more detailed account of the city than we generally bestow on topographical subjects.]

History.—The name of Glasgow is of uncertain etymology. There are several names of places in Scotland which end in *gow*, as Linlithgow, Lesmahago, &c. : *gow* or *go*, says Bryant, signifies a house or temple, also a cave or glen, and sometimes, in a more extended sense, it is found, among the ancient Celts and Germans, to denote a town or village. By substituting C for G, and spelling the word according to the Gaelic pronunciation, we have *Clais-ghu*, the *black* or *dark ravine*,* and the appellation is supposed to have alluded to the woody glen at the east end of the cathedral, through which the little stream, called the Molendinar,† flows. In that glen, whatever may be the derivation of the name, there is reason to conclude that the germ of the city was planted. The first historical notice we have of the place is that of a religious establishment having been founded there, towards the close of the sixth century, by Kentigern, a disciple of Servan, the venerable Culdee of the Inch of Loch-Leven. This ecclesiastic, who was also affectionately called *Mungo* or *Mungo*, which signifies in the Norwegian language *dear friend*, founded his church here about the year 580 A. D., and died in 601, leaving the infant town his blessing, and thereby becoming its protecting saint. He was buried at the east end of the cathedral, and the remains of a monument to his memory, consisting of an effigy in a mutilated state, may still be seen in the bishop's cemetery, beneath the great altar. The vale of Clyde was at this period inhabited by a race of ancient Britons, who, after the abdication of the Romans, (under whom it had formed a part of the province of Valentia,) formed themselves into an independent kingdom, and for two or three centuries resisted the attacks of the Picts from the northern side of the Forth, of the Scoto-Irish from Cantyre, and of the Saxons from Northumberland. Notwithstanding being thus surrounded by enemies, who envied their possessions, then embracing the most fertile and beautiful portion of Scotland, we find the "kingdom of Strath-Clyde," or the Cumbrian or Welsh kingdom, still enjoying its independence at the death of Bede, the historian, in 734 A. D. It consisted of part of Peebles-shire, Dumfries-shire, Ayrshire, Lanarkshire, Renfrewshire, the western parts of Stirlingshire, and the greater part of Dumbartonshire. As it formerly had been under the domination of the Romans, its inhabitants had attained a degree of civilisation unknown to the more northern tribes, and from it emanated some of the earliest and most successful propagators of Christianity. St Patrick, the apostle of the Irish, was born in the neighbourhood of Alcluyd, or Dum-

* Other etymologists derive the name from *Eaglais*, a church, and *dhu*, black ; *Eaglais-dhu*, or *Eaglais-gu*, signifying, on this supposition, the *black kirk*, or *kirk of black friars*.

† In technical Latin *Molendinaria* signifies a grist-mill. From the vicinity of the stream to the cathedral, it was probably brought into requisition by the monks and their dependants to turn their corn-mills, and hence received from them the appellation of *Rivulus Molendinarii*, or grist-mill burn. It is still used to grind grain.

arton, *i. e. Dun Briton*, the capital or principal fort f the Britons of Strathclyde;* St Columba, the postle of the northern Picts, and St Ninian, the apostle f the southern ones, were also natives of the same tle kingdom. At what period Strathclyde lost its dependence cannot be exactly ascertained. In 756, he capital, Alcluyd, was taken by the united attack f the Pictish Ungus and the Saxon Eadbert; yet it s probable, that the Strathclyde Britons did not ntirely cease to exist as a separate people until . D. 843, when Kenneth, the son of Alpin, by his ddress and valour, formed *one kingdom* in Scotland ut of the conflicting elements of several heterogene- us tribes.

We have no historical information regarding Glasgow during the Strathclyde dynasty, beyond this, that the religious establishment founded there by Kentigern was amply endowed by one of the Strathclyde princes with lands, which alternately fell a prey to the Picts, Scots, Saxons, and Danes, until they were partially restored by David I., then prince of Cumberland, who refounded the see A. D. 1115, and in 1129 appointed his chaplain, John, commonly called Achaius, to be bishop. Whether Glasgow before the latter period rose to the importance of a town, it is impossible to determine. The sanctity of its religious establishment would doubtless attract many to the place, and there "savage clans and roving barbarians" would "receive the benefits of knowledge and the blessings of religion;" but amid the miserable conflicts of the times, it could scarcely be supposed to extend itself much beyond its then rude church, and the still ruder residences of its ecclesiastics and their dependents.

After prince David succeeded his brother Alexander I. to the crown of Scotland in 1124, he bestowed many donations on the see of Glasgow, and appointed its bishop, Achaius, to be chancellor of the kingdom. This prelate rebuilt part of the cathedral church of stone, which, previous to his time, was but a mean building, constructed chiefly of timber. The church, thus improved, was solemnly consecrated on the 9th Feb. 1133, in presence of the king, who endowed it with the lands of Perdyc, now called Partick. Achaius also divided the diocese into the two archdeaconries of Glasgow and Teviotdale, and established the offices of dean, subdean, chancellor, treasurer, sacrist, chantor, and succensor, and settled a prebendary upon each of them. The diocese of Glasgow extended from the English limits on the south, to the northern extremity of Loch-Lomond and the river Forth on the north. It comprehended the whole of Dumfries-shire, the eastern part of Galloway, lying between the Nith and Urr, all Roxburghshire, except a small part on the north of the Tweed, the whole of Selkirkshire, all Peebles-shire, Lanarkshire, Ayrshire, Renfrewshire, Dumbartonshire, and more than half of Stirlingshire. This most extensive diocese comprehended 240 parishes; and as Glasgow was the residence of the second church dignitary in Scotland, and a numerous retinue of clergy, it must at this early period, and for some centuries later, have been a place of prominent importance.† In modern days it has often been made a subject of wonderment how Glasgow should have so far exceeded other towns on the Clyde, equally well or even better situated than it is for manufactures and commerce; but the cause is perhaps to be found in the fact of its original ecclesiastical importance, which rendered it at an early period the centre of communication in the west, and thus established for it a sort of metropolitan character, which it continued to maintain amid the revolutions and changes of after times.

Bishop Achaius died in 1147, and was succeeded by five-and-twenty bishops before the diocese was erected, under bishop Blackadder, into an archbishopric, which took place about the period of the reformation. Many of these bishops were also chancellors of the kingdom, and men of political as well as religious distinction. Bishop Joceline, who held the see from 1174 to 1199, built an addition to the cathedral, which had been commenced by Achaius. The church, thus extended, was consecrated on the 9th July, 1197. Previous to this, Joceline procured a charter from William the Lion, erecting the town into a royal burgh, and likewise a charter to hold a fair for eight days annually. William de Boddington, bishop from 1233 to 1260, made several reparations and additions to the cathedral church. To William Rae, bishop from 1335 to 1368, the town owes the erection of the original stone bridge over the Clyde, which still stands, though now greatly widened and modernised. Lady Lochow, at her own expense, built one of the arches. Previous to this the river was crossed by means of a wooden bridge. William Lauder, bishop from 1408 to 1426, laid the foundation of the vestry of the cathedral church, and built the great tower of stone as far as the first battlement, which was carried on and completed by bishop Cameron from 1426 to 1446. William Turnbull, bishop from 1447 to 1455, obtained from king James II. a charter, erecting the town and the patrimony of the bishops into a regality in 1450. The bishop had then the nomination of the civil authorities. James II. also bestowed twenty acres of ground for the behoof of the community, which now forms a part of the low green, and was the commencement of that beautiful park. Soon after, bishop Turnbull procured a bull, from pope Nicolas the fifth, for erecting a university within the city of Glasgow, and he endowed the same, bestowing many privileges on it. At first the college was on the north side of the Rottenrow, and remained there till 1459, when it was removed to the north side of Blackfriars' church, James Lord Hamilton having bequeathed a tenement and four acres of land for that purpose, on condition that the regent and students should pray twice a day for the souls of him, his ancestors, and successors. Robert Blackadder, bishop from 1484 to 1508, procured from pope Alexander VI., a bull, erecting the see of Glasgow into an archbishopric, notwithstanding a violent opposition from the archbishop of St Andrews and other interested ecclesiastics. He also founded, and built to its present height, the great south aisle of the cathedral, upon which, in several places, his arms are still to be seen. James Beaton, nephew to the primate of Scotland, was the last who held the diocese of Glasgow under the catholic sway. During his incumbency the reformation broke out, and to ensure safety to himself, he withdrew into France, in the year 1560, carrying with him all the writs and archives of the see of Glasgow, as well as everything valuable of a portable nature belonging to the cathedral, such as gold and silver crucifixes, relics, &c. He died at Paris, in 1603, leaving all his property to the Scots college there, and to the monastery of the Carthusians, to be given back to Glasgow so soon as its inhabitants returned to the mother church—a period very unlikely ever to arrive.

From the time when king David refounded the see of Glasgow, in 1115, to the reformation, we have little light to throw on the civil history of the town. From an old deed still extant, Glasgow, in 1268, ap-

* Mr Moore, we observe, in his "History of Ireland," makes St Patrick a native of Boulogne, in France. This is in opposition to all previous accounts and all tradition.

† By a bull of pope Alexander III. in 1175, all who reside within the diocese are commanded to visit the cathedral church annually. This order, which doubtless would receive implicit obedience, would of itself necessarily occasion a great influx of strangers into the town.

pears to have been governed by a provost and bailies, and to have been in all respects an organised incorporation, having persons in official situations for the investing and transferring of property, with courts of justice for determining disputes among the inhabitants.

In 1300, Glasgow was the scene of a spirited contest between Sir William Wallace and the English. Earl Percy, under Edward I. of England, having at that time usurped the military government of the west of Scotland, and taken possession of the episcopal palace, the Scottish patriot, with a squadron of 300, attacked him in his stronghold, and after a severe engagement, which took place, tradition says, near where the college now stands, totally routed the English, and rid the town for a time of their presence. In this combat Percy is said to have fallen by the hand of Wallace. In 1350, 1380, and 1381, the city suffered severely from the plague, but what numbers perished is not recorded. In 1387, the great wooden spire of the cathedral was destroyed by lightning. Between 1390 and 1424, a mint house was erected in the Drygate, where coins were struck. The royal crest crowned, but unsceptred, with the motto *Robertus Dei Gratia Rex Scotorum*, appears on one side of the money coined, and on an inner circle are the words *Villa de Glasgow*, while *Dominus Protector* appears on the outer. This mintage is doubted by Chalmers, in his "Caledonia." Prior to 1450, the inhabitants resided chiefly in the vicinity of the cathedral, the cross or public place of resort being at the intersection of the Rottenrow, Drygate, and High Street. In 1435, bishop Cameron enjoined his prebends, thirty-two in number, to erect houses for themselves in the vicinity of the cathedral, and always to reside there, leaving the duty of their respective parishes to be performed by curates. Most of these manor houses were erected in the Rottenrow, and added much to the beauty and importance of the city. After the establishment of the college, the buildings gradually extended downward to the present cross, and from thence eastward on the Gallowgate. Still later, the Saltmarket and Bridgegate were formed, the latter street being originally called Fishergate, from being chiefly inhabited by people employed in fishing in the river.

Besides the cathedral, there was a collegiate church in Glasgow, governed by a provost and eight prebends, founded by the citizens about the year 1487, and dedicated to the Virgin Mary. This is now the tron or laigh church. There were also several chapels about that time in the neighbourhood of the city —one on the Dow-hill, dedicated to St Mungo; a second in the Gorbals, near the bridge, dedicated to St Ninian; a third beyond the west-port, dedicated to St Enoch; a fourth in the neighbourhood of the Stable-green-port, near the bishop's palace, dedicated to St Rolloch; a fifth in the Rottenrow, dedicated to John the Baptist; and a sixth, a little above the cross, on the right hand, dedicated to the holy Thanew, the mother of St Kentigern. No vestiges of any of these chapels now remain. There were also several hospitals belonging to the town—one at Polmadie, near Rutherglen, which was of considerable extent; another, called St Nicolas' hospital, founded by bishop Muirhead near his episcopal palace in 1471; another at the Stable-green-port, endowed by bishop Blackadder in 1491; and a small one for lepers in the Gorbals, which was founded and endowed by a lady of the name of Campbell, about the year 1350. Two convents—one of Black Friars and the other of Grey Friars—were early established in the city, but there is no account of there ever having been a nunnery. The first of the Dominicans or Blackfriars (also called *Fratres Prædicatores*, because of their frequent preaching) who came to Scotland, were brought over from France by bishop Malvoisin of Glasgow, soon after the year 1220. Their convent in this place was founded by the bishop and chapter, in the year 1270, and stood where the college church now stands. It was a fine specimen of Gothic architecture, and excited the admiration of Mr Milne, the king's architect, who surveyed it in the year 1638. It was struck by a thunderbolt in 1668, and a new church built in its place in 1699. The convent of the Grey Friars, or Franciscans, was founded in the year 1476, and demolished in 1560. It was situated in the same street called, from them, Greyfriars' Wynd. The friars were of the order of the mendicants, and possessed nothing, with the exception of the ground upon which their houses stood. Their dress was a grey gown (hence the name), with a cowl, and a rope about their waist. As they entirely depended on charity, they were allowed to go about constantly with wallets on their backs, begging subsistence from the pious. Indeed, in most instances, they differed only from sturdy beggars in that they disguised their indolence under the cloak of sanctimony.

The introduction of the reformed religion proved for a time prejudicial to the interests of the city. Its archbishop and clergy, through whom much of the wealth of the place then flowed, were dispersed, and its university almost entirely neglected. So early as 1500, the doctrines of the reformation began to spread in Scotland, particularly in Ayrshire; and we find about thirty individuals from that county cited before archbishop Blackadder of Glasgow, accused of being Lollards, as the reformers were then contemptuously called, or of entertaining opinions hostile to the mother church. On this occasion, the accused were suffered to depart with an admonition; but as the new doctrines extended and gathered strength, the church, alarmed for its safety, became more rigorous in punishing those who entertained them. Numbers were put to death in St Andrews and Edinburgh; and, in 1538, it was resolved to make some examples at Glasgow, in order to intimidate the heretics of the west. The victims there fixed on were, Jerome Russel, one of the Grey Friars in Glasgow, a man of learning, and John Kennedy, a young gentleman of Ayr, not above eighteen years of age. After a long trial, in which Friar Russel defended his opinions with great eloquence, they were both condemned to the flames, and suffered the execution of the dreadful sentence with magnanimity. "O terrible, truculent, and tragical actings!" exclaims old M'Ure, the earliest historian of Glasgow; "yet such as may be erected amongst us, if ever, as God forbid, the Roman antichrist, the scarlet coloured beast, drunk with the blood of saints and martyrs of Jesus, shall ever again recover his interest in these kingdoms." It is but justice, however, to add, that the condemnation of these men was much against the will of the archbishop of the diocese, Gavin Dunbar, who insisted that such executions hurt the cause of the church, but his disposition to leniency was over-ruled by more fiery ecclesiastics. Russel and Kennedy were the only individuals who suffered in the diocese of Glasgow for the cause of the reformed religion. Notwithstanding the intimidation of the church and many acts of parliament passed against heretics, the reformed doctrines gained proselytes every day, and in a very few years, the Catholic system of church polity, which had cost the labour of many ages to build up, was, in Scotland, entirely overturned.

After the Reformation in 1560, the Presbyterian form of church government was established in Scotland by law, and a general assembly instituted and convened. The establishment, however, was not on a firm basis, for from 1572 to 1592, a sort of episco-

acy obtained in the church. From 1592 to 1610, was strictly presbyterian. From 1610 to 1638, it was again episcopalian. In 1638, it resumed the presbyterian form in all its vigour, which it retained till 1662. In 1662, the tyrannical court of Charles forced episcopacy upon the nation, and upheld it, amid the tears and blood of hundreds of martyrs to the presbyterian cause, till the revolution of 1688. Since that time, the church of Scotland has been uniformly governed according to the presbyterian form. From these changes it has happened that archbishops and presbyterian clergymen held offices in Glasgow at one and the same time. Among the protestant archbishops of this city, may be mentioned John Spotiswood, well known for his history of the church of Scotland, and James Law, author of a commentary on the Scriptures.

Amid the zeal that fired the early reformers, the cathedral church made a narrow escape from destruction. An order was given by the privy council to pull down all the images and altars in the churches. This order was more than fulfilled, for not only the images and altars were pulled down, but many of the stately edifices themselves were defaced or levelled to the ground. Still the cathedral of Glasgow escaped, until 1579, when, according to Spotiswood, by the earnest persuasion of Mr Andrew Melville, then principal of the college of Glasgow, and some other protestant ministers, the magistrates, seconded by zealots from the country, agreed to demolish it, and to build, with its materials, several small churches. But the craftsmen of Glasgow, hearing of this intention, assembled in arms by tuck of drum, and threatened destruction to any one who offered to lay a hand on their venerable cathedral. The design was therefore abandoned. Sir Walter Scott, who has rendered the cathedral for ever classical by his inimitable description of it, alludes to the narrow escape it made, at this time, in the following humorous speech, which he puts into the vulgar mouth of Andrew Fairservice—"Ah! it's a brave kirk! Nane o' your whig-maleeries, and curliewurlies, and open-steek hems about it—a' solid, weel-jointed mason wark, that will stand as lang as the warld, keep hands and gun-powther aff it. It had amaist a doun-come lang syne at the Reformation, when they pu'd down the kirks of St Andrews and Perth, and thereawa', to cleanse them o' popery, and idolatry, and image worship, and surplices, and sic like rags o' the muckle hure, that sitteth on seven hills, as if ane wasna braid eneugh for her auld hinder-end. Sae the commons o' Renfrew, and o' the Barony, and o' the Gorbals, and a' about, they behoved to come into Glasgow ae fair morning, to try their hand on purging the High Kirk o' popish nick nackets. But the townsmen o' Glasgow, they were feared their auld edifice might slip the girths in gaun through siccan rough physic, sae they rang the common bell, and assembled the train bands wi' took o' drum—by good luck, the worthy James Rabat was dean o' guild that year—(and a gude mason he was himsell, made him the keener to keep up the auld bigging)—and the trades assembled, and offered downright battle to the commons rather than their kirk should coup the crans, as they had done elsewhere. It wasna for love o' Paperie—na, na!—nane could ever say that o' the trades o' Glasgow—Sae they soon cam to an agreement to take a' the idolatrous statues o' sants (sorrow be on them!) out o' their neuks—And sae the bits o' stane idols were broken in pieces by scripture warrant, and flung into the Molendinar Burn, and the auld kirk stood as crouse as a cat, when the flaes are caimed aff her, and a' body was alike pleased."

Besides being involved in the religious commotions of the times, Glasgow had also its share in the political conflicts of the period. In 1542, we find its castle besieged, and its immediate environs the scene of an engagement betwixt two of the most powerful factions that then prevailed in the country. In that year, the Earl of Lennox was invited from France by a powerful party, headed by the queen dowager of James V. and Cardinal Beaton, in opposition to the Earl of Arran, then regent. Before his arrival, however, the latter nobleman had entered into an accommodation with his opposers, by which means the hopes of Lennox were disappointed. Nevertheless, by the distribution of some money, received from the French government, Lennox soon excited them to hostilities, and having fortified the bishop's castle at Glasgow, proceeded thence to Dumbarton. But Arran, being apprised of his designs, summoned an army to meet at Stirling, with ten days' provisions. With this he marched to Glasgow, and assailed the castle with brass guns. The siege continued for ten days, after which the place surrendered, on condition of quarter, which was treacherously broken, all the garrison soldiers being put to death, excepting one or two. Lennox, being now joined by the Earl of Glencairn, resolved, at the head of their tenants and adherents, to lay waste the lands of the Hamiltons on the banks of the Clyde. While putting this into execution, their party, headed by Glencairn, was met and attacked by the regent, at a spot called the Butts, near where the infantry barracks now stand, and defeated with much loss. Arran's army, thus victorious, immediately entered Glasgow, and, as many of Lennox's adherents were citizens, he plundered the town, even to the carrying away the doors of the houses, shutters, and the iron bars of the windows. After this engagement, Lennox retired to England, where he married Lady Margaret Douglas, niece to Henry VIII., from which union sprang Henry Darnley, husband to Mary queen of Scots. It may be here mentioned, that Mary, towards the close of 1566, honoured Glasgow with a visit, having come hither for the purpose of attending her husband Darnley, who then lay sick in the house of Mr Erskine, chancellor of the chapter of the cathedral, situated on the north side of the Drygate. Two years after this, the battle of Langside, a village two miles south from Glasgow, was fought, which crushed for ever the hopes of the unfortunate queen. The regent Murray was in Glasgow, holding a court of justice, when he received information of the escape of Mary from Loch-Leven castle, and of her advance with an army to Dumbarton, with the view of strengthening herself in that fort. Murray's forces amounted to about 4000 men, many of whom were citizens of Glasgow, and he immediately pitched his tent upon the burgh muir, to the east of the town, a place which the queen's army must have passed, had it taken the north side of the Clyde. As, however, the queen took a different route, passing westward on the south of the river, Murray speedily changed his position, and, ordering his cavalry to ford the Clyde, and his foot to pass the bridge of Glasgow, he intercepted her just as she approached the village of Langside, near which a road then led from Hamilton, her last quarters. The vanguard of the queen's forces ran eagerly to the combat, before the main body of her army had advanced, and, as they were exposed on the one flank to a continued fire from a body of musqueteers, and attacked on the other by the regent's best troops, they were soon obliged to give way, and the rout immediately became universal. Mary beheld the discomfiture of her army from a neighbouring hill, and fled in despair to England, where she committed herself and her fortunes to the tender mercies of her cousin Elizabeth. Murray, her bastard brother, returned to Glas-

gow, flushed with victory, where he was regaled by the magistrates, to whom he expressed his sense of obligation, and to the incorporation of bakers he gave the mill of Partick, and lands connected with it, in return for their having liberally supplied his army with bread, when quartered in their neighbourhood.

In 1570, the castle of Glasgow was again besieged, by a party in the queen's interest, who were so warmly received by the besieged for several days that they were obliged to retire with considerable loss. Shortly after, Sir William Drury arrived in Glasgow with an English army, and besieged the queen's party in Hamilton castle, which he took and demolished.

In 1581, the confession of faith was subscribed in Glasgow by 2250 individuals, the subscription papers being carried from house to house by the elders. From the subscription papers, it appears that the population was then chiefly confined to the High Street, Gallowgate, Trongate, Saltmarket, Bridgegate, and Stockwell Street.

In 1615, one John Ogilvie, a Jesuit, from the college of Grats, was apprehended at Glasgow, under suspicion of his being engaged in treasonable practices, tending to destroy the supremacy of the king, and to establish that of the pope. After a long trial, he was found guilty, and executed in the streets of Glasgow on the same day he received his doom.

In 1638, the general assembly of the church of Scotland met in the choir of the cathedral of Glasgow. This was the most important assembly in its consequences ever held. It was attended by all the rank and influence which could be collected in Scotland by the contending parties. The court or king's party was outvoted; the commissioner, the marquis of Hamilton, retired; and the assembly, having held twenty-six diets after his departure, decreed, 1st. the abjuration of episcopacy and the articles of Perth; 2d. the abolition of the service books and the high commission; 3d. the proceedings of the six preceding assemblies during episcopacy were declared null and void; 4th. the archbishops of St Andrews and Glasgow, and the bishops of Galloway, Edinburgh, Aberdeen, Ross, Argyle, and Dunblane, were deposed and excommunicated, as were also a number of other clergymen who were favourable to episcopacy; 5th. the covenant being approven of, was ordered to be signed by all ranks under pain of excommunication; 6th. churchmen were incapacitated from holding any place in parliament. "Thus," in the language of Hume, "the whole fabric which James and Charles, during a course of years, had been raising with so much care and policy, fell at once to the ground." A commissioner was appointed to lay the resolutions of this assembly before the king; but, conscious that they would never receive his sanction, war was soon after resolved on, and a military force was raised to defend their cause.

In 1645, an engagement took place at Kilsyth, within a few miles of the city, betwixt the royalists and covenanters, in which the army of the latter, to the amount of seven thousand, was almost completely cut off by the king's forces, under the command of the marquis of Montrose. This gallant general, after the battle, marched into the city, where he levied a contribution upon the inhabitants for the disaffection they entertained for the royal cause. Here, however, he remained only one night, owing to the plague, which at that time raged with fury in Glasgow, as well as in most towns in Scotland.

In 1648, when Charles I. was delivered up to the English government, the Scotch, partly from remorse, and partly from the improper manner in which he was used, and the duty which they owed him as their sovereign, agreed to arm themselves in his favour, and prepared for an invasion of England. In these preparations they were distur- animosities amongst themselv- to be levied, and each distric- nish a particular quota, the c- Charles was extreme, took a- the levy. Excited by their ex- burghs and shires were exas- even refractory, in providing th- The town of Glasgow being a- these contumacious burghs, th- council were summoned to a- answer for their conduct, and a- common to them with the greate- dom, they were imprisoned and d- days. Having professed scrup- regard to promoting the levy, th- ed of their offices by an act of pa- June, 1648, and a commission w- council, authorising them to exe- which they did accordingly. Wh- horse and foot were quartered o- town. The magistrates thus e- ever, long enjoy the situation, b- committee of the estates, the old replaced, as having been unjustly

To the miseries of civil war, wer- the plague, and a grievous famine, a- thereafter, a fourth calamity of a- the city, viz., in 1652, upon the 1- a dreadful fire took place, which th- with total ruin. It broke out a- upon the east side of the High-stre- short space, burnt up six alleys, several very considerable buildings. ing from the north-east, carried suc- fire in the opposite direction, as far on the west side of the Saltmarket both sides of that street were total- in it the best and most considerable town. From the Saltmarket, the fire contiguous buildings to the Trongate and Bridgegate streets, where a great with the furniture of the inhabitants to its fury. This calamity continued hours, before the great violence of the abate. In that space of time, many w- poverty, and the dwellings of near o- families utterly consumed. The greater unfortunate sufferers were obliged to h- selves to the shelter of huts erected in more comfortable accommodation could b- By Saturday in the evening, numbers to the city, and it was hoped that the completely over. However, this was n- for betwixt the hours of seven and eight morning, the fire broke out afresh on the of the Trongate, and continued burning near twelve at noon. This second conflag- only destroyed a great number of dwe- and occasioned the pulling down of many so terrified the whole of the inhabitants carried from their houses what moveables and betook themselves for several nights to fields, where they continued till the fire w- pletely extinguished. This event, whereby part of the city was destroyed, is attested in from colonels Overton and Blackmore to Cromwell, wherein they reckon the damage less than one hundred thousand pounds st- Cromwell, upon the receipt of this letter, ga- representation by the magistrates, with whom formerly been acquainted, (by residing for sev- in the city two years before) generously set a- subscription for their relief. To these fires h- afflicting at the time, is the city of Glasgow in-

indebted for that regularity and elegance, which has since characterised it.

During the reign of Charles II. whose ministers endeavoured to re-establish the episcopal form of church government in Scotland, though contrary to the inclinations of a great part of the nation, sacrifices of the lives and properties of those who opposed the scheme, were everywhere common. In particular, the citizens of Glasgow were mostly covenanters, and many of them were persecuted with unremitting fury. Numbers were hanged in the streets, while others, under the threatening of the like punishment, were forbid attending the presbyterian preachers. At one time the community of the city was fined in £100 sterling, for allowing a presbyterian minister to preach within its limits. And at another time, guards were set at the city gates to prevent the inhabitants, on Sunday, from attending field preachings in the country.

In 1677, Glasgow was a second time almost destroyed by a dreadful fire, a thousand families being thereby left without a habitation, and one hundred and thirty shops and houses consumed. As it threatened the prison, in which were a great number of people, confined principally for their religious opinions, the citizens broke open the doors and set them at liberty.

The measures used against the covenanters, however severe, were not found to answer the intended purpose, and others, more rigorous if possible, were thought necessary. A bond was made out by order of government, which the inhabitants of Glasgow and the western shires were ordered to subscribe. As this deed contained a complete renunciation of presbytery, and an abhorrence of all their former proceedings, it was easy to foresee that few would relish it. To enforce the subscription, an army of Highlanders, to the amount of eight thousand, were assembled at Stirling, from whence they issued out against this district. On the 26th of January, 1678, they arrived at Glasgow, where, after exercising for the space of five days the most wanton acts of cruelty and oppression upon such as would not willingly comply with the bond, they proceeded towards Ayrshire. There, as in Glasgow, they made a prey of whatever came within the reach of their hands, and if they suspected any concealment, compelled by torture the unfortunate objects of their suspicion to discover their hidden wealth. Such acts of violence excited a general indignation through the kingdom; the Highlanders were recalled, and the west was at once stripped of her effects, and liberated from her oppressors.

In 1679, on the anniversary of the restoration, about eighty covenanters having assembled at Rutherglen, they, after extinguishing the bonfires that had been lighted for solemnisation of the birth-day, published a declaration and testimony expressive of their motives, and burned at the cross the several acts of parliament, and of the privy-council, that had passed against them. Notice of these proceedings having come to Edinburgh, Claverhouse was despatched with a party to quell the insurgents, and at the same time with orders to give them battle, in case any resistance should be offered. He accordingly fell in with the presbyterians, assembled near Loudon-hill, and having to no purpose desired them to disperse and deliver up the ringleaders, he began an attack. From the superiority of the numbers of the covenanters, Claverhouse and his party were defeated with a considerable loss; they immediately retreated to Glasgow, where, as they expected to be assaulted by the country people, the streets were barricaded, and other measures taken for their better defence. These expectations were not ill-grounded; the covenanters, flushed with their success after a night's stay at Hamilton, marched to Glasgow. When near the city, they divided their force into two battalions, the one marching into the town by the Gallowgate, and the other by the College Vennal. Immediately thereafter, an engagement took place, which was supported for a considerable time with great bravery on both sides. At last the covenanters were obliged to retreat, from the superior skill of the soldiery, as well as from the fire kept up against them from the windows and closes adjacent to the street. They accordingly left the city in good order, after having eight men killed in the engagement, and several wounded. To this in a few days succeeded the battle of Bothwell Bridge.

Immediately after that engagement, Claverhouse requested permission to burn Glasgow, and the other towns in the west, on account of their containing a great number who were well affected to the cause of the covenanters. This was refused. It is, however, said, that to shelter the town from plunder, the community were obliged to quit to Edinburgh a debt of thirty thousand merks, which they held upon the Canonmills.

At the revolution of 1688, the citizens of Glasgow, to testify their regard to the protestant persuasion, levied and armed five hundred men, whom they sent to Edinburgh, commanded by the earl of Argyle and lord Newbottle, to assist in guarding the convention of estates convened for making a tender of the crown to William and Mary. That convention, regardful of the general voice of the people of Scotland, which had ever been averse to episcopacy, having constituted themselves into a parliament, abolished that form of church government, and in its stead established presbytery, for which Scotland had so firmly contended, during the two preceding reigns. In consequence of this act, John Paterson, who then held possession of the see of Glasgow, resigned his charge, and retired to Edinburgh, where, in ten years afterwards, he died at the age of seventy-six.

Shortly after, William and Mary had been raised to the throne, they granted in favour of the community of Glasgow, and in consideration of their loyalty, a new charter of confirmation, whereby they "enact and ordain, that the city of Glasgow and town council thereof, shall have power and privilege to choose their own magistrates, provosts, bailies, and other officers within the burgh, as fully and freely, in all respects, as the city of Edinburgh, or any other royal burgh within the kingdom." By this charter, their right of election, which had been challenged and infringed upon since the last charter in the year 1633, was established, and continued nominally in use till the recent Scots burgh reform bill. William, though he favoured the citizens by thus confirming their liberties, yet he, or his ministers, in another respect, hurt them much, as well as many others, by discouraging the infant colony then lately established at the isthmus of Darien. In this scheme, Glasgow was deeply engaged, and the most sanguine hopes were entertained of its success for a considerable time; till enemies too powerful to be suppressed, arose and accomplished its destruction, to the unspeakable chagrin of the nation in general, as well as of many individuals who were thereby involved in ruin.

In 1694, in consequence of a dispute betwixt a citizen and a soldier, the town clerk of Glasgow, Robert Park, was stabbed to death in the city chamber, by major James Menzies. The major immediately fled, but was pursued, and in consequence of resistance, shot in Renfield garden. The dispute betwixt the citizen and the soldier had been referred to the sitting magistrate. The town clerk embraced the cause of the citizen, while the major supported

the soldier: high words ensued; and thus the quarrel fatally terminated.

The union of England and Scotland in 1707 was very beneficial to Glasgow; for although previous to this event, from its inland commerce, and the industry of its inhabitants in other branches of business, it had arrived at a great degree of importance; yet its merchants were fettered in their speculations by the restriction, or rather prohibition, which was issued against their commercial intercourse with America and the West Indies. At the union these bars were removed, the merchants of Glasgow took advantage of the circumstance, and thus laid the foundation of its future wealth and prosperity. But however fortunate such an event has been for the city, it was not carried without the most violent opposition from a great part of the people.

When the rebellion in favour of the Stuarts broke out under the earl of Marr in 1715, Glasgow exerted itself in support of the protestant succession in the house of Hanover, and raised a battalion of six hundred men, which immediately thereafter marched to Stirling to join the king's troops under the duke of Argyle. The city was also, at the same time, slightly fortified, by drawing a ditch round it, twelve feet wide, and six feet deep. By the general adoption of such measures as these, and the vigorous manner in which they were carried into execution, rebellion languished and expired, and tranquillity was again restored to the country.

In 1725, on the extension of the malt tax to Scotland, great murmurs took place throughout the kingdom, and nowhere were they louder than in Glasgow, particularly amongst the poorer class of inhabitants. They saw the consequences that would arise from the act, viz., the raising of the price of ale, their favourite beverage; and they determined to show their detestation of it by revenging themselves upon its abettors. Accordingly, they attacked the house of their representative in parliament, Daniel Campbell, Esq. of Shawfield, who then resided in the town, and after breaking the windows, destroyed every article of furniture they could find within the apartments. While they were so engaged, a party of the military under the command of a captain Bushel arrived, with a view of quelling the disturbance. That officer ordered his men to fire amongst the rioters; by which above twenty, at the first discharge, were killed and wounded. Instead of dispersing, the mob, upon this, increased to an immense multitude, arms were procured, and Bushel and his party were obliged to save themselves by flying towards the castle of Dumbarton; whither, for several miles, they were pursued by the enraged multitude. This coming to the knowledge of the commander-in-chief, general Wade, he immediately raised a body of forces, and proceeded, accompanied by the lord advocate of Scotland, Duncan Forbes, to Glasgow. He took possession of the town, and as the magistrates were supposed to have improperly discharged their duty, in not lending their authority to quell the tumult, they were taken into custody, that they might be brought to trial before the court of justiciary. They were accordingly conveyed prisoners to Edinburgh, underwent a trial, and were acquitted. On their return to Glasgow, they were met about six miles from town by upwards of two hundred of the inhabitants on horseback, who conducted them into the city, where they were received with the ringing of bells and other demonstrations of joy. The legislature, to punish the corporation of the city, upon the application of Mr Campbell, passed an act granting him as a compensation the sum of six thousand and eighty pounds sterling, to be paid forth of the funds of the community. This sum was accordingly uplifted, and together with the damages and expenses incurred, the funds of the city lost about nine thousand pounds sterling from this affray.

When the rebellion of 1745 broke out, the chevalier Charles Edward sent a demand to the magistrates of Glasgow for fifteen thousand pounds sterling, together with the arrears of their taxes, and all their arms. It was not, however, immediately complied with, upon the idea that the king's forces would speedily arrive, and free them from the contribution. In consequence of this delay in not forwarding the exaction, John Hay, writer to the signet, came with a party of horse to Glasgow, threatened the city with military execution, and even to hang up the chief magistrate, in case of non-compliance with the demand. Inability being pled, Hay accepted of five thousand pounds in money, and five hundred in goods. This was not all. Upon the retreat of the rebels from England, towards the north, they again visited the town, and made and obtained a demand of twelve thousand linen shirts, six thousand cloth coats, six thousand pairs of shoes, six thousand pairs of hose, and six thousand bonnets, which were accordingly provided. These exactions Charles, no doubt, made with the greater severity, from the steady loyalty and attachment which the city showed to the established government under the house of Hanover. At this time, the community raised two battalions of four hundred and fifty men each, for the service of government, which were engaged and behaved with great gallantry at the battle of Falkirk, under the command of the earl of Home. During the chevalier's stay at Glasgow, from the 25th of December to the 3d of January, 1746, the most sullen sorrow prevailed amongst the inhabitants, and though he often appeared in public, he was not so much as attended by the common retinue of a mob, whose curiosity at this time seems to have been repressed by that spirit of loyalty which pervaded every class. The temper of the Highlanders could not brook this neglect, for no sooner were the contributions levied, than a resolution was agreed to, to plunder and burn the town; which would doubtless have taken place, had not one of their own chiefs, Cameron of Lochiel, interposed, and by threatening to withdraw his clan, forced them to lay their design aside. The exactions that were at this time made, and the expense of quartering the pretender's army for ten days, and of raising their battalions, cost the city of Glasgow fourteen thousand pounds sterling. Of that sum, they recovered by an application to parliament, ten thousand pounds; which, though it did not fully indemnify them, yet seems to have been equivalent to their expectations, and as much as government could then well spare, from the more pressing exigencies of the times.

In 1755, the merchants of Glasgow, with a view of opening a more ready communication with the continent of Europe, projected the canal betwixt the rivers Forth and Clyde. The operations commenced under the direction of Mr John Smeaton, the celebrated engineer.

From that period to 1775, the commerce of the city extended rapidly. In the latter year Glasgow employed upwards of sixty thousand tons of shipping; having, in the single article of tobacco, imported from America the amasing quantity of fifty-seven thousand one hundred and forty-three hogsheads. But the American revolution put a stop to the commercial intercourse between the countries. When that contest began, the most vigorous efforts were made throughout the kingdom, to quell the spirit of insurrection that had broken out in the colonies. Glasgow made an offer to his majesty to raise a regiment of one thousand men for the service of government, which the king accepted. Subscrip-

tions for this purpose were accordingly set on foot in the city, and a sum was raised in a few days to the amount of nine thousand six hundred pounds, which, aided by the general zeal then manifested in support of government, completed this corps in the course of the ensuing summer. The regiment was afterwards called the 83d or Glasgow regiment. At the same time, the merchants of the city fitted out in the Clyde fourteen privateers, mounting from twelve to twenty-two guns, and carrying in whole about one thousand men. These were in the course of the war of very considerable service, by driving the privateers of the enemy from the coast, and protecting the trade of the country.

Shortly thereafter, a numerous body of the citizens of Glasgow were cast into a ferment, by a bill having been moved for, to be brought into parliament for the repeal of the penal statutes against the Roman catholics. In this city alone, eighty-five different societies, consisting of upwards of twelve thousand persons, were formed with a view of opposing the bill by petition: these again corresponded with others in the country, whose business was to form new associations, and thus in a short time the greater part of Scotland inveighed against the measure, which was at the time prudently dropt. The minds of the uneducated on this occasion, were so inflamed against the Catholics, who were represented as conspiring against their liberties, that outrages against the property and effects of persons of that persuasion, were the unavoidable consequence. In 1779, a mob having collected on Sunday, during the time of divine service, they proceeded to a popish chapel in the High street, and after forcing their way into the house, they dismissed the congregation, by pelting them with stones, while they destroyed a number of pictures representing the different saints, hung round the altar. The magistrates having arrived after service with a party, the mob dispersed, and no further outrage took place at the time. On the evening of the 10th of February thereafter, the populace again assembled around the shop of a potter in King street, of the Roman Catholic persuasion, which they effectually gutted, but on the arrival of the magistrates with a party of the military, the mob there seemingly dispersed. They, however, went immediately to the potter's dwelling-house, at the east end of the town, and set it on fire, so that it was, with the furniture, entirely consumed, before any means could be used to extinguish it. So true were the actors in this riot to each other, that notwithstanding the magistrates next day, by proclamation, offered a reward of one hundred guineas for the apprehension of any one of the ringleaders, they all resisted the temptation, and none were ever secured. Bagnal, the proprietor of the shop and dwelling-house, thereafter commenced an action for damages against the city, and recovered to the amount of his loss.

Another riot occurred about the same time, on account of a bill being introduced into parliament for repealing the duty on French cambrics, such a bill threatening to reduce the wages of the weavers here. Peace was restored, however, by the ministry withdrawing the bill, before it had gone through the customary stages.

During the spring of 1782, there happened a remarkable inundation of the Clyde. This took place on Tuesday the 12th of March, and, for its magnitude, was unequalled in the annals of the city. For some few days before, there had been an almost uninterrupted fall of snow and rain, but more particularly heavy in that part of the country where the Clyde takes its rise, than about the city of Glasgow. The river, however, till the Monday preceding the inundation, did not seem to carry any very threatening appearance, otherwise than what it shows in bad or stormy weather. But, on the afternoon of that day, it began suddenly to swell, and before ten in the evening, the waters had extended over the Green, stopped the communication with the country by the bridges, and laid the Bridgegate in flood to the depth of some feet. As the inhabitants of that street had been frequently used to inundations of the river, they quietly allowed themselves to be surrounded by the water, thinking that during the night it would subside as usual, and in this opinion, many of them went to bed. Instead of decreasing, the flood increased, and the fears of the suffering inhabitants were at last seriously roused, when they perceived the waters getting higher than they had ever witnessed them, by flooding their ground apartments several feet deep, extinguishing their fires, and at last entering those very beds, where, a few hours before, many had lain down to rest. To fly at this time from the presence of the calamity was impossible, as the water in the street, from its depth and current, would have frustrated the attempt, by at once sacrificing those lives, which in another situation it so dreadfully threatened. Nothing was now to be heard, but the cries of despair, and the most pitiful exclamations for help, uttered by the old as well as the young. Day at length approached, and hoped-for relief was at hand, from the exertions of their fellow-citizens. By seven o'clock in the morning of Tuesday, the flood began to abate, to the infinite satisfaction of the sufferers, as well as the other inhabitants, who had it now in their power to administer that relief which before was impracticable. Boats were accordingly sent up and down the streets, loaded with provisions, to furnish such as stood in need, and for the purpose of bringing off others, whose fears cautioned them against staying longer in their houses.

Independently of this scene of misery, which pressed so hard upon the inhabitants of this particular quarter, the river, when viewed from another point, exhibited a most terrific and threatening appearance, for not only was the whole of the Bridgegate overflowed, but also the lower part of the Saltmarket, Stockwell, and Jamaica streets, as well as the village of Gorbals, which appeared as an island in the midst of an estuary. The Clyde, after having attained fully the height of twenty feet above its ordinary level, began to fall, and by Wednesday immediately following it was again confined to its ordinary channel. The damage sustained by this unprecedented inundation was very great, from the quantities of tobacco, sugar, and other merchandise, that were either carried away, or destroyed by the stream.

In 1783, the unlucky contest with America having terminated, new exertions were made by the citizens to extend their commerce and manufactures:—and with a view to the general interest, a society of merchants united themselves under the name of the Chamber of Commerce and Manufactures, whose sole aim, as a body, was to employ their influence and funds for the benefit and protection of the trade of the city.

In 1787, the peace of the city was disturbed by a tumultuous mob, raised with the view of increasing the wages of the journeymen weavers. Webs were cut from the looms of such as agreed to work at the former rate; warehouses were rifled, and bonfires kindled with their contents. To suppress these outrages, the magistrates, after having received information that a mob was assembled in the Calton, proceeded, attended by the peace officers, to that quarter, in order to disperse them, and secure the ringleaders. They were no sooner arrived, than they were attacked by the populace, and forced to retreat

into the city, whither they were pursued by the mob. An additional force to quell the rioters became therefore necessary; and this having been obtained by the arrival of a detachment of the 39th regiment, the magistrates again proceeded to the scene of disorder. They fell in with the mob near the Park-house, on the east side of the city, betwixt which place and the Drygate, a very serious conflict ensued. No sooner had the magistrates and military arrived, than the populace attacked them furiously with stones, brick-bats, and other missile weapons, whereby their lives were endangered, and many amongst them much hurt. To defend themselves, they were at last under the necessity, after reading the riot act, of ordering the military to fire, by which three persons were killed outright, three mortally, and the same number slightly wounded.

On the following day, a mob assembled in the Calton, to the amount of several thousands. There, as formerly, they wreaked their vengeance upon their peaceable brethren, by cutting their webs from the looms and burning them. Intelligence having reached the sheriff, he immediately, with a party of soldiers, proceeded to the spot, in order to quell the disturbance. The mob, aware of the fatal effects of opposition on the preceding day, no sooner got a glimpse of the military, than they quickly retired and separated.

From this riot forward to the year 1790, nothing remarkable occurs that has a connexion with the city. In that year the Forth and Clyde canal was finished, and on the 29th day of July the communication was opened between the friths of Forth and Clyde.

In 1791 and 1792, the Infirmary, Trades' Hall, and Surgeons' Hall were erected. At the same time also Stirling's Library was instituted.

In 1793, the peace of the city was again threatened by another riot, proceeding, however, from a different cause from that which occasioned the former ones. In the beginning of December, a deserter having escaped from the guard-house, through the negligence of the sentinel, a court martial adjudged the latter to be punished for breach of duty. His fellow-soldiers were, however, determined to hinder the sentence from being put into execution, and for several days from this resolution the punishment did not take place. As this combination was contrary to all order, and as it might have been productive of the worst effects, the troops of the neighbourhood were called into the city to assist in quelling the insurgents. Before their arrival, however, the ring-leaders surrendered themselves to the earl of Breadalbane, colonel of the regiment. No sooner had this taken place, than they were ordered to march for Edinburgh, under a strong guard, there to take their trial. The honourable major Leslie and an officer of the Breadalbane regiment, having accompanied the party a short way on their march, were, upon their return to town, attacked by a mob, who, after upbraiding them for sending off the mutineers to be punished, assaulted them with stones and other missile weapons, whereby major Leslie was wounded, and he and the other officer obliged to take shelter by retreating into a neighbouring house. Parties of dragoons having come to town in the evening, no further disturbance upon this occasion took place, and tranquillity was again restored.

On the 18th of November, 1795, the Clyde again rose to a great height, and inundated the lower parts of the city nearly as much as it had done in that memorable flood on the 12th of March, 1782. The swelling of the river was occasioned by a severe storm of wind, rain, and snow, which commenced upon Tuesday the 17th, and continued till the following Wednesday in the afternoon. About the middle of that day, the current was so strong as to shake the piers of the newly erected bridge, opposite the foot of the Saltmarket street, and in consequence, two of the arches immediately gave way, and with a tremendous crash fell into the river. The concussion of the water, occasioned by this, was great; the doors of the washing-house, though situated at a considerable distance, were burst open, and a great quantity of clothes and utensils carried off by the stream. In the afternoon, the three remaining arches of the bridge shared the same fate with the others; and thus, within a few hours, that edifice, which had been nearly a year and a half in erecting, was completely destroyed. At this time, the Bridgegate, the lower parts of the Saltmarket, Stockwell, Jamaica street, and the Gorbals were all under water to the depth of several feet, while boats were plying up and down these streets, administering relief to such as were in danger. On Friday morning, the river was again confined to its ordinary channel, and till Saturday, hopes were entertained that the violence of the storm was over; however, on that day it began to snow and rain afresh, and with such violence, that the Clyde quickly rose, and twice, in the compass of one week, overflowed the lower part of the city. On Sunday the waters appeared to be retiring, and by Monday afternoon the inundation was completely over.

In 1797, the corps of Royal Glasgow Volunteers, which had been raised in 1794, was augmented to ten companies; a second battalion was also unanimously voted by the citizens, and accepted of by his majesty, to the amount of five hundred men, commanded by officers recommended by the lord-lieutenant of the county; a third regiment, or armed association, composed principally of gentlemen of the city more advanced in years than those who composed the first regiment, was also embodied; and to add still more to the security of the city, a troop of volunteer cavalry, composed of the citizens, was raised. All these local forces were raised for the public security, which was supposed to be endangered by the spread of revolutionary principles and the proceedings of the French republic. With the same view, the citizens collected by voluntary subscription £13,938, which they transmitted to government for carrying on the war. The volunteer system gave place in 1808 to the local militia.

In 1799-1800, from a general failure of the crop throughout the kingdom, every article of provision sold at an exorbitant price, some nearly three times their accustomed rate. To alleviate the evil as much as possible, the magistrates and town council of Glasgow set on foot a subscription in each of these years, for the purpose of bringing in grain to supply the inhabitants, to be sold at a rate somewhat reduced from the ordinary price of the country around. By these subscriptions a sum was raised, on the credit of which the managing committee speedily purchased a supply to the value of no less than £117,000 sterling, from Galloway, Ayrshire, and America, and this contributed, in a considerable degree, towards the relief of the poorer class of inhabitants.

In September 1800, a system of police was established in the city which has since been productive of the best effects, in securing the peace of the city, and the comfort and convenience of its inhabitants.

In 1803, Hutchesons' Hospital was rebuilt; in 1804, the Queen Street Theatre and the Hunterian Museum; and, in 1806, Nelson's monument. The top of the monument was completely shattered on the 5th of August, 1810, during a violent thunder-storm.

In 1806, the Glasgow Water-works Company was formed, and two years after, the Cranston-hill Water-works Company. Previous to this, the inhabitants were supplied by public wells, which became inadequate to the demand. In 1804, Mr Harley erected a reservoir in Upper Nile Street, and sent a supply of spring water through the town in carriages.

In 1809, after the fall of Sir John Moore, who was a native of Glasgow, a subscription was opened for raising a monument to his memory, which, in a few days, amounted to above £4000. A public oratorio was also performed in the choir of the cathedral, commemorative of that gallant general.

In 1810, the New Jail and public offices, the new Slaughter Houses, the Lunatic Asylum, Lyceum, and Post Office were built. Lancasterian schools were also erected this year at an expense of £6000, but did not succeed.

In 1812, navigation by steam was introduced. The Comet of Glasgow was the first boat which was successfully impelled by steam in Europe.

The citizens of Glasgow have long been distinguished for great liberality in their voluntary contributions, whether these be in support of a patriotic cause or to assist the afflicted in times of general or local distress. Besides the patriotic and benevolent subscriptions already mentioned, they subscribed, in 1813, £5,204 towards the relief of the sufferers by the campaign of Napoleon in Russia; in 1814, £4,554, to assist the sufferers by the war in Germany; and in 1815, £7,558, to the fund instituted in London for the relief of the widows and children of such as fell at Waterloo. In the latter year, the Roman Catholic chapel in Clyde Street was erected.

In 1816 and 17, the labouring classes suffered severely from low wages and want of employment. A subscription of £12,871 was raised to give temporary relief to them, and numbers were employed in levelling and re-turfing the high green. During the same period much discontent at the government of the country prevailed, and in October, 1816, a public meeting of above 40,000 inhabitants was held at Thrushgrove, about a mile north of the city, for the purpose of petitioning parliament for a reform in the House of Commons and a redress of grievances. This meeting is remarkable as being the first which took place, in Scotland, in the open air, for political purposes. It was the precursor of numerous other meetings of a similar nature, all of which, notwithstanding the immense number of people generally collected, passed off without the slightest disorder.

In 1818, a company was formed for lighting the city with gas. This year typhus fever prevailed to a great extent; a fever hospital was erected, and a subscription of £6,626 raised for the relief of the sufferers.

Towards the close of 1819, the manufacturing districts of the country were in a state of great political fermentation. Glasgow was the headquarters of radicalism in the west of Scotland, and much apprehension prevailed of a general rising of the labouring classes. The ministry of the day, to meet the exigencies of the times, suspended the habeas corpus act, and got other laws passed subversive of the liberties of the subject. These were not the most questionable of their proceedings. They also employed spies or informers in various quarters of the kingdom, who did not confine themselves to their base occupation, but took the lead in *instigating* the simple and enthusiastic into acts of open rebellion. This is a consequence of every spy-system. The creatures so employed, if nothing really exist to excite alarm, must create something, in order to continue the necessity of their occupation. But the ministry, in this instance, as has now been abundantly proven, were not deceived in the matter, but were, in fact, the first movers of the secret machinery that was disturbing and alarming the whole fabric of society. By exciting the existing dissatisfaction among the labouring classes into overt acts of treason, they sought to strengthen their position with the well-disposed and timid of all parties, and, at the same time, to furnish themselves with a reason for stifling complaint before it became formidable. Treasonable placards, manufactured at headquarters, were posted up throughout Glasgow and its environs; the most appalling rumours were afloat; trade was suspended; the city was crowded with military; and everything bore the appearance of some impending and fatal crisis. Many, suspected of sedition, were seized; and a small armed party, which left Glasgow with the delusive view of obtaining cannon at Carron iron works, were attacked by the military at Bonnymuir in Stirlingshire, and, after a spirited resistance, secured. Trials for high treason followed, in different districts of the kingdom; two were executed at Stirling, one at Glasgow, and numbers banished beyond seas.

During this disturbed period, and the trial of Queen Caroline which followed, many riots of a serious nature took place in Glasgow, in which the military were invariably called out, and, for the better preserving the peace, government judged it necessary to erect barracks for cavalry on the south side of the river.

In 1820, the new Grammar School was built. In 1821, a grand musical festival was held in the Theatre Royal, at which some of the most distinguished singers of the continent were present. In the same year, the horologe of the Tron steeple was lighted with gas. In 1822, the quay at the Broomielaw was extended for the accommodation of steam boats. In the same year, a subscription to a considerable amount was raised for the relief of the inhabitants in the southern districts of Ireland. In 1823 (Feb. 16th), Gibson's land, a large tenement in the Saltmarket, which had been previously condemned, fell with a great crash; but as the inhabitants had left the house the preceding day, and as the accident took place on a Sunday morning when the streets were empty, only one man was killed. This accident led to the appointment of a committee of tradesmen to inspect the old tenements in the town, and the result was, that many ancient fabrics, especially in the Saltmarket, were condemned and taken down. The same year was distinguished by the commencement of the Mechanics' Institution, which was followed by numerous others throughout the country.

In April, 1824, a grand masonic procession laid the foundation stone of London Street. St David's church was also commenced this year, and a public meeting held with a view of raising a subscription for a monument to the memory of James Watt. Upwards of £3,000 was subscribed for this monument. In 1825, the foundation stone of a monument to the memory of John Knox was laid.

On the 18th August, 1829, the foundation stone of Hutchesons' bridge was laid with masonic honours; and, on the 8th of July, 1833, the foundation stone of the new Jamaica Street Bridge was laid. In September, 1830, the new Royal Exchange in Queen Street, which forms one of the principal architectural attractions in the city, was opened.

In February, 1832, the cholera broke out in Glasgow, and continued to afflict the city with more or less severity for about a year. Subscriptions, to the amount of about £10,000, were raised for providing against this terrible malady, and several cholera hospitals were opened in the city and suburbs. The voluntary subscriptions proving insufficient, a tax was

laid on the rental of the town. It is not known with accuracy how many died of cholera in Glasgow, as latterly no reports of the cases were published, but it may be calculated that between four and five thousand perished. The total mortality of Glasgow and suburbs in 1832 was above 10,000, and as little more than 5000 forms the average annual mortality of the place, the great increase of that year must be attributed to the ravages of cholera.

Before and during the passing of the reform bill, Glasgow distinguished itself by its activity in support of that measure. It was the first place in the empire which set the example of reform processions —an example which was very generally followed, and which had the advantage of showing in an orderly manner the universality and strength of opinion in favour of reform. Some of these processions at Glasgow were unequalled for extent, for propriety of demeanour, and rich display of flags and other devices. The public park or Green was, on such occasions, made the general rendesvous, and often, at the lowest calculation, above 100,000 human beings were to be seen assembled there, actuated by one object, and impressed by one spirit. The most recent display of this kind occurred in November, 1834, in honour of the Earl of Durham, upon whom the magistrates and town council conferred the freedom of the town, and who, in the evening, was treated to a public dinner, at which above 1500 individuals, holding similar political opinions with his lordship, were present. By the passing of the reform bill, Glasgow gained the privilege of returning two members to parliament. Previous to this, it had only the shadow of a voice, in conjunction with the burghs of Rutherglen, Renfrew, and Dumbarton, in electing one representative. The constituency of Glasgow is upwards of 7000; and since the passing of the Scots burgh reform bill in 1832, this parliamentary constituency has also the privilege of electing the town councillors, from among whom the provost and bailies are chosen.

Description.—As Glasgow was included in the Roman province of Valentia, and stands at a short distance from the celebrated wall erected by Agricola, it is probable that it originally formed a Roman fort or station for defence against the inroads of the mountain barbarians. About one hundred and fifty years after the Romans had finally left the island, St Kentigern, as we have seen, took up his abode here, and, by the sanctity of his character, gave celebrity to the place. Some are of opinion that he exercised the office of a Christian bishop, and that the episcopal see of Glasgow was founded by him; but it is more likely that he was only a religious recluse, for whose sanctity posterity entertained such veneration that they dedicated the cathedral church to his memory. In all the writs of the Chartulary of Glasgow he is never once called bishop, but sometimes confessor. At all events, about five centuries elapsed from the death of St Kentigern, before the see of Glasgow was supplied with a regular establishment, and the date when the place assumed an importance above that of a mere village, or collection of rude huts formed of wattles or timber and covered with straw, may be fixed at 1115, the year when king David founded or refounded the bishopric, and endowed it with ample possessions. From that period, which witnessed also the commencement of the building of the cathedral, to the period of the reformation, Glasgow enjoyed all the consequence attendant, in these days, on an episcopal see, whose domination extended over the fairest and richest portion of Scotland. In the Rottenrow, Drygate, and Castle Street, to which the town was then mainly confined, were situated the mansions of the rectors,* prebendaries, and other dignitaries of the church, some of which are still to be seen, either in a ruinous state, or inhabited by poor people, but with these exceptions, and the glorious exception of the cathedral, nothing almost of Glasgow as a Roman Catholic city now remains. Its churches, chapels, convents, hospitals, and other appendages of the popish establishment, are all levelled to the ground. The bishop's palace, or as it was usually called the castle of Glasgow, stood a little to the west of the cathedral, and was surrounded with a stone wall, adorned with turrets, bastions, and battlements. It underwent several sieges both before and during the reformation; after which event, it long remained in a habitable state, till at length it was suffered to fall into decay. It still, however, as a ruin, formed a noble and interesting appendage to the cathedral, and might have remained to this day, if man had touched it with as gentle a finger as time. But the profitable was preferred to the picturesque. Some time during last century, materials were taken from it for building an inn in the Gallowgate, called the Saracen's Head; again, in 1778, a large portion of it was taken down to widen the street; and in 1792 its last remains were removed, to make room for the site of the Royal Infirmary. The old building at the foot of the Saltmarket, nearly opposite the Bridgegate, called Silvercraig's Land, which was taken down a few years ago, was at one time a country *residence* of the bishops. Oliver Cromwell, when at Glasgow, in 1650—51, resided and held his levees in this land. After the reformation, the country seat of the archbishops of Glasgow was at Partick, where archbishop Spottiswood built a castle in 1611, the ruins of which still remain.

Old M'Ure, the earliest historian of the town, gives us a glimpse of Glasgow during the Roman Catholic dynasty, which presents it in a very imposing light. "After bishop Cameron," he says, "had built his palace or castle near the high church of Glasgow, he caused the thirty-two members, parsons or rectors of the metropolitan church, each of them to build a manse or manse near the same, and ordained them all to reside here, and to cause curates to officiate in their stead through their respective parishes. This great prelate now being seated in his palace, and the thirty-two parsons having built their respective manses or manors on the four streets adjacent to the great church, he made a most solemn and magnificent procession and entry to the metropolitan church; twelve persons or fertors carrying his large silver crosier and eleven large silver maces before him, accompanied with the thirty-two parsons, members of the chapter belonging to the great church, the bells of the two steeples ringing, the organs, with the vocal and instrumental music sung by the masters of the sacred music in the cathedral, gorgeously arrayed with costly vestments, and especially when Te Deum and Mass were to be sung and celebrated. But further, the great resort of his vassals and tenants, being noblemen and barons of the greatest figure in the kingdom, waiting and attending upon this spiritual prince, in procuring from him charters of confirmation and resignation, tacks of lands and tithes, together with the ecclesiastic persons that depended upon him, made his court to be very splendid, next to majesty itself."

The reformation, as we have already stated in the historical sketch, was at first prejudicial to the prosperity of the city, by doing away with its ecclesiastical importance. But being the seat of a university, and having always a considerable inland trade, it

* The old town lodging of the noble family of Montrose, originally belonged to the rector of Eaglesham. It came into the Montrose family in 1586, but is now converted into small dwelling-houses and weavers' shops.

n recovered the shock of the change, and con-ued to extend itself from the cathedral towards banks of the river. The destructive fires of 2 and 1677, by which whole ranges of streets were l waste, were ultimately advantageous to the ap-rance of the town, for the houses, which had herto been chiefly built of wood, were now built stone, and opportunity was now furnished for nning the streets after a regular form.

So early as 1658, we find that Glasgow had be-me noted for the beauty of its buildings, the regu-ity and cleanness of its streets, and the excellency its gardens and orchards. In the "Perfect Poli-ian," published in the above year, it is thus de-ribed: "Glasgow, a city of a pleasant site, upon a ver navigable for small boats, which usually bring provisions from Patrick's town (Kilpatrick), ten iles thence, where ships of good burthen may ride. Glasgow, the streets and houses are more neat d clean than those of Edinburgh; it being also one the chiefest universities in Scotland." A still more ttering description of the town is given by Franck, English tourist, who wrote his "Northern Me-oirs" in the same year as the above (1658.) The stimony of this Englishman may be the more readily elieved, as he is otherwise severe on Scotland. 'Now, let us descend to describe," he exclaims, the splendour and gaity of this city of Glasgow, which surpasseth most, if not all the corporations in cotland. Here it is you may observe four large fair treets, modelled, as it were, into a specious quad-ant; in the centre whereof their market place is ixed; near unto which stands a stately tolbooth, a ery sumptuous, regulated, uniform fabric, large and ofty, most industriously and artificially carved from the very foundation to the superstructure, to the great admiration of strangers and travellers. But this state-house or tolbooth is their western prodigy, infinitely excelling the model and usual build of town-halls; and is, without exception, the paragon of beauty in the west, whose compeer is nowhere to be found in the north, should you rally the rarities of all the corporations in Scotland." Again: "What to think, or what to say, of this eminent Glasgow, I know not, except to fancy a smell of my native coun-try. The very prospect of this flourishing city re-minds me of the beautiful fabrics and the florid fields of England, so that now I begin to expect a pleasant journey. Pray, tell me, how many such cities shall we meet with in our travels, where the streets and the channels are so cleanly swept, and the meat in every house so artificially dressed? The linen, I also observed, was very neatly lapped up, and to their praise be it spoke, was lavender proof; besides, the people were decently dressed, and such an exact decorum in every society, represents it, to my appre-hension, an emblem of England, though, in some measure, under a deeper die. However, I'll super-scribe it the Nonsuch of Scotland, where an English florist may pick up a posie."—"The panegyric which the author pronounces upon Glasgow," says Sir Walter Scott, "gives us a higher idea of the pros-perity of Scotland's western capital, during the middle of the seventeenth century, than the reader perhaps might have anticipated. Commerce had already brought wealth to Glasgow, and with wealth seems to have arisen an attention to the decencies and conveniences of life, unknown as yet in other parts of Scotland."

In 1689, Glasgow is thus spoken of by Morer, in his Short Account of Scotland: "Glasgow is a place of great extent and good situation, and has the reputa-tion of the finest town in Scotland, not excepting Edin-burgh, though the royal city. The two main streets are made cross-wise, well paved, and bounded with stately buildings, especially about the centre, where they are mostly new, with piazzas under them." In 1725, Burt, an English traveller, in his Letters from the North, thus writes: "Glasgow is, to outward appear-ance, the prettiest and most uniform town that I ever saw; and I believe there is nothing like it in Britain." A more celebrated authority than any of the above, Defoe, the author of 'Robinson Crusoe,' in his Tour in Scotland, first published in 1727, thus speaks of Glasgow:—"Glasgow is the emporium of the west of Scotland, being, for its commerce and riches, the second in the northern part of Great Britain. It is a large, stately, and well-built city, standing on a plain, in a manner four square; and the four princi-pal streets are the fairest for breadth and the finest built that I have ever seen in any one city together. The houses are all of stone, and generally uniform in height, as well as in front. The lower stories, for the most part, stand on vast square Doric columns, with arches, which open into the shops, adding to the strength, as well as beauty, of the building. In a word, 'tis one of the cleanliest, most beautiful, and best built cities in Great Britain."

These descriptions of Glasgow are all by strangers and Englishmen. We shall now quote the opinion of a countryman, Dr Smollett,* who received most of his education here. "The chief place of Lanark-shire," he says, "and indeed, the great emporium of the west of Scotland, is the large, elegant, and flourishing city of Glasgow, containing near thirty thousand inhabitants. It is pleasantly situated about thirty (Scots) miles from Edinburgh, on the descent of a gentle eminence, and the adjacent plain, extending to the banks of the river Clyde, over which there is a stately stone bridge of seven arches. The greater part of this fine city is laid out in a regular plan, the streets crossing each other at right angles. The houses are in general lofty, built of hewn stone, and near the cross or market-place, supported upon arched pillars, which form a commodious piazza before the shops, and give an air of nobleness to the buildings. The streets are well paved, clean, straight, and spacious; in a word, Glasgow is the most beautiful town of Great Britain, adorned with a great number of public edifices, such as the cathe-dral, and five or six other elegant churches, the tol-booth, town hall, and several hospitals, whose lofty turrets and spires yield a magnificent prospect at a distance."†

Those who may have been accustomed to consider Glasgow as only a place of yesterday, which has merely risen to distinction through the means of the steam-engine and spinning jenny, will possibly be surprised at the panegyrical manner in which it is spoken of by the writers whom we have just quoted. But a little reflection will convince us, that Glasgow, a hundred years ago, must, in reality, have been a very fine city—indeed, more beautiful and attractive, per-haps, to the eye of the traveller, than it is at present. In 1736, its population amounted only to about 15,000; yet, how many public buildings of an impres-sive or elegant character were then contained within this small town! It could then boast of its cathe-dral, the most ancient and stately edifice in Scotland; of its antique and venerable college halls with their

* The real name of Smollett's Peter Potion, in Roderick Random, was Dr Peter Patoun, who lived in a house which is at present No. 40 in the High Street. Dr Smollett lodged there while at College.

† See "The Present State of all Nations, by T. Smollett, M.D." London, 1768, 8vo. Only two volumes of this work were printed, and these embrace Great Britain and Ire-land. See also the novel of "Humphrey Clinker," in which Matthew Bramble is made to give a flattering account of Glasgow.

academic groves; of its town hall, tolbooth, and tower, buildings of great magnificence in their day; of its merchants' hall and steeple, the latter still one of the finest specimens of steeple architecture in the country; of its town-hospital, the first of the kind erected in Scotland, and, considering the extent of the city at the time, an elegant and commodious building; besides, of various churches with spires, such as Blackfriars' church, the Tron church, the Ramshorn church, St Enoch's church, &c., and of many private residences unequalled in the kingdom for beauty of architecture. Indeed, no town *of similar dimensions*, in modern times, can enumerate so many public attractions. Its principal streets, also, which, contrary to what generally obtained in these days, were wide and clean, consisted of high ranges of freestone buildings, mostly set on pilasters, and bearing altogether a very impressive and picturesque character. The public park, or green, was then adorned with beautiful serpentine walks, and within and around the city were numerous flower-gardens and orchards, which, says M'Ure, "by reason of the open and large streets sent forth a pleasant and odoriferous smell about it." In short, Glasgow, in these days, with its spacious streets and fine buildings, its general cleanness and opulence, must have formed a striking contrast to the narrow, nasty, and ill-conditioned towns which then prevailed in Scotland; and we can almost conceive M'Ure to be uttering no hyperbole, but sober truth, when he says, that Glasgow was acknowledged by all foreigners to be, "*of its bigness, the most beautiful city in the world.*"

Modern Glasgow, though greatly changed since the days of M'Ure—changed to an extent enough to make the bones of that old enthusiast stir in their grave—may still be considered a beautiful and interesting city. Its principal part occupies a plain on the north bank of the river Clyde, whence it rises by a gradual ascent till it is terminated by the cathedral on the north. It resembles London, in that its suburbs extend to the opposite bank of the river, with which they communicate by four bridges, three of stone and one of wood. Suburbs also diverge from other directions of the city. The suburbs on the south side of the river are four in number, though they now form one connected whole. The eastern portion is called Hutchesontown; the western, Tradeston; and between these stands the old Gorbals, the nucleus of the whole, with Laurieston by its side, which may be considered the youngest, fairest, and most thriving of its progeny. The chief suburbs on the north or Glasgow side of the river are Anderston, Finnieston, and Cowcaddens, to the west and north-west; and Calton and Bridgeton, to the east and south-east. The principal street of the city runs nearly east and west, bearing at different points the names of Gallowgate, Trongate, and Argyle Street, and is two miles long and about eighty feet broad. Sixty years ago, the Trongate was pronounced by the celebrated Edmund Burke, to be the finest street in Europe, and it still forms, with its picturesque buildings and ever moving crowd, an interesting panorama of commercial life. The Trongate and Argyle Street are intersected by a variety of tributary streets, which lead off to the north and south. To the north of the Trongate and Argyle Street diverge the High Street, Nelson Street, Candleriggs, Brunswick Street, Hutcheson Street, Glassford Street, Virginia Street, Miller Street, Queen Street, Buchanan Street, Mitchell Street, Union Street, and others further west; to the south diverge the Saltmarket, King Street, Stockwell Street, Dunlop Street, Maxwell Street, St Enoch Street, Jamaica Street, and others further west. There are three leading streets, which run parallel with Argyle Street, and are intersected, as in the latter, by cross streets running north and south. These are Ingram Street, George Street, and St Vincent Street. Ingram Street may now be reckoned the centre of the city, although little more than fifty years ago it was quite a rural road, sprinkled here and there with gardeners' and dairymen's cottages, and receiving the humble cognomen of *Cow Lone*. It is now terminated on the west by the magnificent New Exchange, and is adorned on its northern side by the Assembly Rooms, the Bank of Scotland, Hutchesons' Hospital, and St David's Church. George Street runs west from the High Street, at the point where Duke Street branches off to the east, and is terminated by St George's Church. St Vincent Street commences at the south-west corner of George's square, and passing St Vincent Place, proceeds westward over Blythswood Hill. West George Street, Regent Street, and Bath Street run in a parallel direction, and consist of some beautiful ranges of buildings. These have all a graceful ascent towards Blythswood Hill, on the summit of which stands Blythswood square, from which an extensive and varied prospect may be obtained: to the east and south, a panoramic view of the city, with all its pinnacles and towers, and the hills of Cathkin, Dychmont, and Tinto; to the west, the vale of Clyde, the town of Paisley, and the distant mountains beyond; and to the north, Benlomond and the Campsie hills. Beyond Blythswood square stretches Sauchiehall Street, which consists of neat rows of houses, with parterres in front, and near the western extremity of which splendid crescents have recently been erected. With the exception of its public works, which are mostly built of brick, Glasgow is almost entirely constructed of hewn stone, which gives in all cases a substantial, in many an elegant, character to the appearance of the city. The greater part of the private buildings, particularly in the ancient part of the town, are built in what is called flats, by which one or more families are accommodated under the same roof. In many of the modern erections, however, the tenements are so constructed, that one family occupies the whole. Most of the streets are sixty feet wide, and they are all causeyed with whin-stone, and skirted with hewn-stone pavements of various breadths.

Of the *Public Buildings* and *Institutions* of Glasgow, we can only take a summary view, as any satisfactory detail of them would extend this article too much. First in time, as well as interest, stands the *Cathedral* or *High Church*. It was founded, as we have seen in our historical sketch, by John Achaius, bishop of Glasgow, in 1123, and continued to be carried on by succeeding bishops, aided by collections from all the churches of Scotland, and a liberal sale of indulgences to all who contributed to the pious undertaking, until, by bishop Joceline, it was dedicated to St Mungo, or Kentigern, on the last day of May, 1197. From an inscription upon the Abbey church of Melrose, it appears that the architect was John Murdo, who by the numerous works which he executed, seems to have been at the head of his profession in Scotland. The original plan of this cathedral was in the form of a cross; though the transverse part on the south side has never been carried higher than the first tier of arches. It is 319 feet long, 65 broad, and 90 feet high within the walls. The circumference, measuring round the walls and abutments, is 1090 feet; it is supported by 147 pillars, and lighted by 157 windows of various dimensions, many of which are of exquisite workmanship. About the centre of the building, a square tower rises nearly 30 feet above the roof, supported by four massy pillars, each 29 feet 6 inches in circumfer-

nce. On this tower, about the year 1420, was built tapering octangular spire, with diminishing battlements. The spaces between the battlements are nlivened by pointed windows, and relieved by ioouldings and small spires, the whole terminating ı a ball and weathercock, at the height of 225 feet bove the floor of the choir. A similar tower rises n the west end of the building, to a level with the rst battlement. This tower contains the bell and lock. The bold and lofty arches in the body of the hurch, formed by the concurrent ramifications of the pposite columns, and the massive pillars, exhibit a rand perspective, though the effect is hurt by the artitions by which it is now divided into two differnt places of worship, one called the Inner Church, nd the other the Outer Church. In the crypt under he choir and chapter house, the piers and groining re of the most intricate and beautiful workmanship, nd are not equalled by any in the kingdom. This as opened as a church for the Barony parish in 595; but in 1801, the seats were removed, and it as converted to its original use, as a depositary for he dead. It was here where the congregation so inely described in "Rob Roy" assembled.

From the elevated situation of the ground upon hich it is built, being 104 feet above the level of he river, the Cathedral is a most conspicuous object, nd commands a delightfully extensive view of the urrounding country. Sir Walter Scott's description f its situation and character must be familiar to most eaders, yet the following short passage is so exquisitey beautiful that we cannot refrain from copying it. 'Situated," he says, "in a populous and considerable own, this solemn and massive pile has the appearance f the most sequestered solitude. High walls divide t from the buildings of the city on one side; on the ther, it is bounded by a ravine, through the depth of hich, and invisible to the eye, murmurs a wandering rivulet, adding, by its rushing noise, to the imposing solemnity of the scene. On the opposite side f the ravine rises a steep bank, covered with fir trees losely planted, whose dusky shade extends itself over he cemetery with an appropriate and gloomy effect. The church-yard itself has a peculiar character; for though in reality extensive, it is small in proportion to the number of respectable inhabitants who are interred within it, and whose graves are almost all covered with tomb stones. There is therefore no room for the long rank grass, which, in the ordinary case, partially clothes the surface in these retreats, where the wicked cease from troubling, and the weary are at rest. The broad flat monumental stones are placed so close to each other, that the precincts appear to be flagged with them, and, though roofed only by the heavens, resemble the floor of one of our old English churches, where the pavement is covered with sepulchral inscriptions. The contents of these sad records of mortality, the vain sorrows which they preserve, the stern lessons which they teach of the nothingness of humanity, the extent of ground which they so closely cover, and their uniform and melancholy tenor, reminded me of the roll of the prophet, *'which was written within and without, and there were written therein lamentations, and mourning, and woe.'*"

Besides the cathedral, there are many churches and chapels in Glasgow worthy of notice, the most important of which, in point of architectural attraction, are, St Andrew's, St Enoch's, St George's, St David's, and the Roman Catholic Chapel.

The *College* or *University* of Glasgow is an extensive and venerable edifice, situated on the east side of the High Street. It owes its origin, as we have already seen, to William Turnbull, bishop of Glasgow, who in 1460 laid the foundation of the institution by establishing a teacher of theology, and three professors of philosophy; and Pope Nicholas V., at the request of James II., issued a bull licensing the college as a school for theology, canon and civil law, and the liberal arts, with privileges to the professors and students similar to those of the university of Bologna; and he vested the office of chancellor of the institution in the successive bishops of Glasgow. Ample endowment was bestowed on the new seminary by the founder, and James II. granted it many privileges and immunities. The Scottish reformation in 1560, involving the overthrow of the ecclesiastical hierarchy, proved almost ruinous to the university. The professors and other officers, who belonged to the clerical order, fled from the violence of the Presbyterians, and the chancellor, archbishop James Beaton, going to France, carried away the charters and records, and deposited them in the Scots College at Paris. The university continued in a very depressed state till James VI. granted a new charter, and endowed it with valuable property; since which it has acquired high reputation as a school of science, especially since the middle of the past century. The college buildings, though displaying but little architectural decoration, nevertheless interest the observer by their venerable and classic appearance, while their general arrangement deserves the praise of convenience and usefulness of structure. The front towards the street is 300 feet in length, and has an elevation of three stories. At the northern extremity is a gateway leading to an area or court-yard of considerable extent, in which are the houses of the different professors; and a corresponding gateway at the southern extremity leads to the residence of the principal. The grand entrance is through a gate in the centre, surmounted by the royal arms; and this opens into a large court, on one side of which is a stone staircase leading to the faculty-hall, an extensive and splendid room, in which the professors assemble to transact the private business of the college. Passing onwards through another gateway we reach a second court, surrounded by the different lecture-rooms of the university; and on the outer side of this area, on the second story, is the common hall of the college, in which public meetings of the students are held, and public worship takes place on Sundays. Another gateway passes under the common hall, and leads to a third area, in the front of which stands the Hunterian museum, an elegant edifice erected in 1805, under the direction of Mr Starke, for the reception of the valuable collection of anatomical preparations, shells, insects, and fossils, with a cabinet of coins and medals, bequeathed to the university by the celebrated Dr William Hunter. The college library forms another side of this area; the collection of books is large and valuable, including the library of Dr Robert Simson, the translator of Euclid's Geometry, and medical books given by Dr Hunter. There is also an observatory, well fitted up, and furnished with instruments for the use of the professor of practical astronomy. The government of this institution is intrusted to a lord chancellor, a lord rector, a dean of faculty, the principal, and the faculty of professors. The chancellorship is a permanent office; and the rector is appointed annually by votes of the professors and the public students. The emoluments of the professors are derived, partly from the funds of the college, arising from landed property in the town and neighbourhood, now extremely valuable, and partly from fees paid by the students. There are two descriptions of the latter—the public students, who undergo the ceremonies of matriculation, attend the five classes of Latin, Greek, logic, moral and natural philosophy, keep regular terms, submit to the restraints of college discipline

vote on questions relative to the concerns of the university, contend for prizes, and are eligible to degrees; and the private students, who attend one or more courses of any of the professors, without any views to college advantages. The former are distinguished by wearing a scarlet gown or *toga*.

The *Bridges* of Glasgow which connect it with its southern suburbs are four in number, three of stone and one of wood. The Old Bridge or Stockwell Street bridge, was built in 1345, and was originally only twelve feet wide. In 1776, it was widened ten feet on the east side, and in 1820-21, again widened, by the formation of footpaths suspended on iron framings, from a design by the late Mr Telford. The old Broomielaw or Jamaica Street bridge was erected in 1767, and taken down in 1833, to make way for a more spacious structure, designed by Mr Telford. (See the article *Bridge*.) Hutchesons' bridge, a heavy stone structure, was erected in 1830-33, from a design by Mr Stevenson. In 1794, a stone bridge was raised in the same site, but, when nearly finished, was swept away by a flood. Portland Street bridge is a handsome wooden structure, erected in 1832, as an accommodation bridge during the building of the New Jamaica Street bridge. Besides the above, Rutherglen bridge, which crosses the Clyde at Bridgeton, may also be considered as belonging to Glasgow. It was erected in 1776, from a design by the celebrated James Watt.

The *Jail and Public Offices* are situated at the north end of Hutchesons' bridge, opposite the public park or green. They were built in 1810, from designs by Mr Starke, at an expense of £40,000. The east front, which contains the Court Hall and other public offices, presents a beautiful specimen of the Grecian Doric. The portico consists of six fluted columns, placed on colossal steps, with a screen of columns behind, and a richly ornamented frize, cornice, and pediment.

Of modern erections in Glasgow, by far the finest are the *New Royal Exchange* and surrounding buildings in Queen Street. This exchange was built in 1829, from a design by Mr David Hamilton. Its front consists of a magnificent portico and cupola, behind which a splendid hall is fitted up as a reading room and general place of rendesvous for the merchants of the city. At the back of the Royal Exchange is situated the *Royal Bank* of Scotland, a chaste and beautiful building. Besides this exchange, there is an establishment of the same kind, called the *Tontine Buildings*, near the Cross, erected in 1781, and used as a reading room and place of assembly for merchants.

The *Public Monuments* of Glasgow are highly creditable to the city. Near the Cross, and opposite the Tontine Buildings, stands a handsome equestrian statue of King William III. which was presented to the town in 1735, by James M'Crae, a citizen of Glasgow, and formerly governor of the presidency of Madras. In the green was erected, in 1806, an elegant stone obelisk to the memory of Lord Nelson, being the first monument commemorative of that hero which was raised in Britain. In the town hall was placed, in 1812, a full length statue of Pitt in marble, executed by Flaxman. In George's square stand two bronze statues, one by Flaxman, in honour of Sir John Moore, who was a native of Glasgow, and one, by Chantrey, in honour of James Watt, who made his great improvements on the steam engine at Glasgow. A colossal statue in stone, placed on a pedestal, occupies a prominent position in the fir-park which overlooks the cathedral, and is dedicated to the memory of John Knox; and near it stands a smaller monument to another champion of protestantism, William M'Gavin. A monument to the memory of Sir Walter Scott is at present in progress.

The *Benevolent and Charitable Institutions* of Glasgow are very numerous. Hutchesons' Hospital was established, about the year 1640, by George and Thomas Hutcheson, writers in Glasgow, and since its institution has received new benefactions from different persons. Its funds go to the relief of decayed burgesses and the widows and daughters of burgesses, and to the education of a certain number of boys. Wilson's Charity, an endowment made in 1778, goes to the education and clothing of a certain number of boys; and Millar's Charity, founded in 1790, goes to the education and clothing of a certain number of girls. The Highland Society of Glasgow, established in 1727, has similar objects with the above. Besides these, there are a number of institutions for the relief of indigent old men and women—for the sick and indigent—and for religious instruction. Glasgow has an excellent Infirmary and Fever Hospital, situated near the Cathedral—an Asylum for the Blind, and an Asylum for the Dumb, in the same vicinity—besides a Lunatic Asylum and a Magdalen Asylum.

The *Literary and Scientific Institutions* of Glasgow are also numerous. The Andersonian Institution or University was founded by the late John Anderson, professor of natural philosophy in the university of Glasgow, who, by his will, dated the 7th May, 1796, bequeathed his valuable philosophical apparatus, and nearly the whole of his property, towards the endowment of an institution in this city "for giving lectures in natural philosophy, and in every branch of knowledge." His plan embraced four colleges, one of arts, one of medicine, one of law, and one of theology. It was for many years, however, chiefly restricted to natural philosophy and chemistry, but now embraces a complete course of medical instruction, besides classes of botany, mineralogy, &c. The institution was incorporated by a charter from the magistrates on the 9th June, 1796. The general superintendence is vested in eighty-one trustees, appointed by name in the will of the founder, and continuing in office for life. These are selected out of nine different classes of citizens; and vacancies by death, or resignation, are filled up by ballot. Nine are chosen annually as a committee to regulate the affairs of the institution, who, out of their own number, elect a president, secretary, and treasurer.

Professor Anderson's zeal for the advancement of scientific knowledge led him to wish that the *fair sex* also might be allowed to participate in its benefits; and a prophetic hope is expressed in his will, that, by means of a course of physical lectures, adapted principally for ladies, but which gentlemen might also be permitted to attend, the ladies of Glasgow would become the most accomplished ladies in Europe. The benignant scheme could not be carried into effect in the college, although even there a few ladies were admitted occasionally to a private gallery, but it forms now a striking and important feature in the institution of which he was the founder. The late Dr Thomas Garnet was the first professor. In the winter of 1796, he delivered his first course of lectures to a crowded audience of both sexes in the Trades' Hall. The lecture room was afterwards transferred to John Street, where a commodious rotundo was fitted up, for the purposes of the institution. Dr Garnet continued his lectures for four successive sessions. The Andersonian Institution having by this time excited great interest in London, gave rise to the Royal Institution of Great Britain, which was formed nearly on the same principles. To the chair of natural philosophy in this establishment, Dr Garnet was appointed in 1801. He was succeeded by Dr George Birkbeck, who, in

ddition to the regular lectures, opened a gratuitous weekly class for persons engaged in mechanical and hemical arts. Although manufacturers and artifiers are referred to in the will of the founder, it does ot appear that he contemplated a class composed of *perative mechanics*, on the plan now adopted. Dr Birkbeck has, therefore, the merit of having given he first impulse to a scheme which has been emiently successful in Glasgow, and has thence obtaind the notice and imitation of all Europe. The nechanics' class having thus commenced, progresively advanced in reputation. The chief alterition in its arrangements was the charge of a small ee, which has been exacted since the second course f lectures, to support the necessary expenditure. ndependent of the valuable library left to the instiution by the founder, another was formed in 1808, nder the direction of Dr Ure, which is solely dediated to the use of the mechanics, and conducted by committee of their own number. A new class was pened in the session of 1825, which, in the true spirit of the founder, permits the wives and daughters of the mechanics to accompany them to the lectures on two evenings every week, whereby an opportunity is afforded them of learning such principles of philosophy as relate to domestic economy and the arts. There are thus two distinct mechanics' courses of fifty lectures each. During the same session ladies in the higher ranks of life have been also gratified for the first time, with a popular course of lectures on chemistry, which was most numerously and respectably attended. The trustees of the Andersonian University purchased for the institution the range of buildings in George Street, formerly occupied as the grammar school. These new lecture-rooms were opened in 1828, and contain an excellent museum.

In consequence of circumstances which it is unnecessary to detail, a party of the mechanics separated in 1823 from their *Alma Mater*, and formed themselves into a different establishment, under the name of the Mechanics' Institution, which is entirely under the management of the mechanics themselves, and has been successful beyond all expectation. It commenced in July 1823. A large hall in North Albion Street, formerly the upper part of a church, was converted into a lecture room, but within these few years an elegant structure was raised for the purpose in North Hanover Street, at the expense of Mr John Leadbetter, and is now the property of the mechanics. The institution has been lately incorporated by the magistrates, and is at present in a flourishing condition. The museum attached to it is daily increasing, and the library is extensive. In the institution hall there is a fine painting by Bewick of Dr Birkbeck, who is now president of the mechanics' institution in London. This was formed in November, 1823, on the plan of that of Glasgow, and the system has rapidly extended to the chief towns and cities of the empire, and to the continents of Europe and America.

A Royal Botanic Garden was instituted in 1817. It is situated about a mile westward from the city, and is beautifully laid out.

The College Literary Society was instituted in 1752. It consisted of such of the professors as chose to become members of it, and of other literary gentlemen. The established clergy in the city and vicinity were admitted, on expressing a desire to that effect. Its meetings were held once a week during the session, in the faculty hall, when an essay was delivered on some literary or scientific subject, which was submitted to the criticism of the society. Amongst its former distinguished members, may be ranked professors Leechman, Simson, Adam Smith, Trail, Reid, Millar, Richardson, and Young. From the increased business of the college, and the augmented labours of the professors, the meetings of this society have for some years been discontinued.

The Literary and Commercial Society was founded in 1791 by some young men who were then students of the logic class. It had at that time a different appellation, but the same society has existed ever since, under various forms and renovations. In 1805 an arrangement was made by which commercial subjects were introduced, and it then assumed its present designation. For several years some of the most eminent merchants in the city were members of it, and it still holds a respectable rank amongst similar institutions.

The Philosophical Society was established in 1802, with a view to promote the knowledge of the arts and sciences, by the reading of appropriate essays, discussing the merits of new suggestions in mechanics, illustrating these by the exhibition of models, and otherwise encouraging philosophical pursuits.

Stirling's Public Library derives its origin from the late Walter Stirling, merchant, who, in 1791, bequeathed his library, his house in Millar Street, his share in the Tontine buildings, and a thousand pounds in money, to establish a public library for the use of the citizens. The management is vested in deputations of three persons each from the town council, the merchants' house, the presbytery of Glasgow, and the faculty of physicians and surgeons; the Lord Provost being also a director ex officio. The subscriptions are for life, and the charge at the commencement was three guineas, which was in 1793 raised to five guineas, and in 1816 to ten guineas. It has since, however, been reduced to seven guineas. The library consists of above 8000 volumes. It is kept in the hall of Hutchesons' hospital.

The Glasgow Public Library was established in 1804 by a number of gentlemen, who associated themselves for the purpose of forming a library on popular principles, and on such moderate terms of admission as might secure its general utility. The management is vested in nine curators, and a treasurer, secretary, and librarian. The entry money is at present twenty shillings, and the annual subscription 10s 6d. The shares are transferable. The library consists of above 6000 volumes, and the number of subscribers exceeds 500.

The Glasgow Foreign Library was instituted in 1820. Its object was to form a collection of foreign periodical works, transactions of foreign societies, and books of general literature, in the principal European languages.

The Theological Seminary was established in Glasgow, by the synod of the united secession church, for the purpose of training and educating young men under its authority, for the ministry. It is conducted by two professors, one of whom delivers lectures in biblical literature, and the other in systematic theology. The attendance of the students is required for five sessions. To this seminary is attached a library for the use of the students, to which has been lately added the large and valuable collection of books, chiefly in divinity, which formed the library of the late Rev. James Robertson of Kilmarnock. When, in consequence of his demise in 1814, this library came to be offered for sale, some gentlemen in connexion with the religious society to which he belonged, and who knew its established character, resolved to make a purchase of it, with a view to lay it open on certain conditions to the public. Shareholders were admitted at five pounds each, and annual subscribers at half a guinea. It existed as a public library for about ten years, during which period large additions were made to it in every department of science and of general literature. In September, 1824, the synod of the secession church came to the deter-

mination to purchase it, for the use of the professors and students of their theological seminary. It has been accordingly transferred to that body.

The Dilettanti Society was instituted in 1828, by a few scientific gentlemen, with a view to encourage and promote the study of the fine arts, particularly painting, architecture, and engraving. Its members chiefly belong to one or other of these departments. The dilettanti society rooms are situated in Buchanan Street, where an exhibition of paintings is opened annually.

Commerce and inland navigation.—The first species of trade in which the inhabitants of Glasgow seem to have embarked, was the curing and exporting of salmon and herring caught in the Clyde. In 1201, a society of *fishers* was formed, the members of which inhabited a row of houses fronting the river, called the Fishergate. After the Stockwell street bridge was built in 1345, this row of houses was called Bridgegate. Salt for curing the fish being sold near the east end of the Fishergate, gave rise to the Saltmarket. In 1420, we find one merchant, Mr Elphinston, exporting a considerable quantity of cured fish to France, and in 1567, no less than 20,400 barrels of herrings were sent from Glasgow to Rochelle. "The origin of foreign trade in this great city," says Mr Pennant, "is extremely worthy of attention. A merchant, of the name of Walter Gibson, first laid, by an adventure, the foundation of its wealth; about 1668, he cured and exported in a Dutch vessel, 300 lasts of herrings, each containing six barrels, which he sent to St Martin's in France, where he got a barrel of brandy and a crown for each. The ship returning with brandy and salt, the cargo was sold for a good sum. He then launched further into business, bought the vessel and two large ships besides, with which he traded to different parts of Europe, and to Virginia; he also first imported iron to Glasgow, for before that time it was received from Stirling and Borrowstounness, in exchange for dyed stuffs, and even the wine used in this city was brought from Edinburgh." In 1674, a whale fishing company was established at Glasgow, consisting of nine shares of £1500 each. With this sum they equipped five vessels, one of which, built at Belfast, carried 40 guns, and was of a burden of 700 tons. They built a soapwork at the head of Candlerigg street. They also erected a range of buildings at Greenock, called the royal closs, for the purpose of curing fish, but this speculation did not succeed. The employment of such a large capital by one company, is sufficient to show that the commerce of the town, at this time, must have been considerable. Indeed, so early as 1656, Glasgow possessed of shipping, twelve vessels of 957 tons, and in 1692, the number had increased to sixty-six vessels. Although this shipping belonged to Glasgow merchants, yet from the shallowness of the Clyde, the vessels were not loaded and unloaded at the city. The shipping harbour in 1653, was at Cunningham, in Ayrshire, but the land carriage being expensive, the magistrates endeavoured to contract with the magistrates of Dumbarton, for ground to build a harbour near that town, but this, as well as a like attempt, made about the same time, to establish a harbour at Troon, proved abortive. In 1656, the burghs of Dumbarton and Renfrew joined that of Glasgow, and deepened the river by cutting away several fords, and thus rendered the Clyde navigable for small flat-bottomed boats up to Glasgow. At a period of six years after this, the city of Glasgow purchased thirteen acres of ground, on the site where Port-Glasgow now stands, where a harbour was speedily erected, as also a dry-dock, the first in Scotland. At this harbour the Glasgow vessels continued for many years to be unloaded, the cargo being brought up to the town by small boats, and by land carriage; nor was there any quay formed at Glasgow before the year 1688.

Eleven years later than this brings us to a period of great calamity to Glasgow, in the loss which she sustained by the expedition to Darien, many of her merchants having been deeply concerned in that unfortunate enterprise.

The union of Scotland with England forms an important era in the history of the commerce and manufactures of Glasgow, as by that event all the colonial ports were laid open to her merchants, who embarked eagerly in trade, and chartered vessels from Whitehaven to Virginia and Maryland, sending goods of various kinds, and bringing back tobacco in return. This trade increased to a great extent, so that in a few years, Glasgow became the principal seat in the British empire for the importation and manufacture of tobacco. This success soon excited the jealousy of the English merchants, and, in 171[illegible], the traders of Bristol presented a petition to the commissioners of customs of London, praying them to check the trade of Glasgow; but so satisfactory was the answer of the Glasgow merchants, and so clearly did they overturn all the false accusations that had been laid to their charge, that the petition was dismissed. In 1721, the merchants of London, Liverpool, and Whitehaven, combined and presented a similar petition, which met with a similar fate. The invidious attacks of the English merchants did not terminate here; in the year following, they presented a like petition to the house of commons, a house at no time remarkable for its indulgence to Glasgow. The house sent a commission of inquiry to Glasgow, in 1723, the result of which was the institution of a set of complex and vexatious excise regulations, the impossibility of observing all of which involved many of the merchants in expensive lawsuits, and for a time caused a great depression in trade.

Besides embarking largely in trade with the American continent, the Glasgow merchants, after the union, made several attempts to open a trade with the West Indies, and in 1732, a connexion seems to have been formed between some of the merchants here, and the West India proprietors. This gradually increased, so that in 1775, we find the imports from the West Indies alone were, of sugar 4621 hhds., 691 trs.; rum 1154 puncheons, 193 hhds., and of cotton 503 bags. The commerce of Glasgow extended to almost all the countries of Europe and America at this time, although her shipping did not all arrive at her own port. Many of her vessels were loaded and unloaded at London, and the exports included almost every species of English manufacture. The manufactures of Scotland were as yet in their infancy, and did not constitute above one-fourth of the exports of the Glasgow vessels. The tobacco imported from Virginia was almost all exported to the continent; and to such an extent did this branch of trade arrive, that, in the year last mentioned, forty-nine thousand hogsheads were imported by Glasgow, a quantity equal to one-half of all that was brought that year to Great Britain. Of this tobacco about 6000 hhds. were retained for home consumption.

Factors were kept at different stations in America, who received merchandise from Glasgow and remitted tobacco; and so lucrative did this line of business become, that, before the commencement of the war, the factors were enabled, on their own account, to enter into extensive speculations with the planters.

The tobacco trade, while it continued, engrossed nearly the whole capital and commercial enterprise of Glasgow; and any manufactures that were car-

ried on, were chiefly of articles adapted to the demands of the Virginia merchant. The war, therefore, which broke out between the American colonies and the mother country, gave a dreadful shock to the prosperity of the city. Long credits, of 18 months or more, had usually been given to the colonists, and when hostilities commenced these remained unpaid, so that the ruin of many of the richest merchants ensued. Even the peace with America, which took place in 1783, did not renew to its former extent the commercial intercourse between this city and that country, for it opened the ports of the United States to all Europe; so that France, Holland, &c., instead of receiving their tobacco through Glasgow, imported it themselves direct from America.

Although, however, the most important channel of the trade of the city was thus cut away, yet the commercial spirit of her merchants had, by habits of business, gained too much strength to be thus destroyed, and the loss of America only tended to change the direction of its activity. The *cotton trade* now attracted their attention, and has ever since continued to form the staple manufacture of the city. The West India colonies belonging to the other European powers having, for a time, passed into the British possession, in consequence of the war of 1793, the city of Glasgow took a large share in the trade.

A correspondence was opened by the Glasgow merchants with the United States, after the introduction of the cultivation of the cotton plant into the Southern states, which tended to increase this trade. In order to facilitate the interchange of American cotton and British manufacture, establishments, connected with Glasgow houses, were formed at Charleston and New Orleans. The trade with the United States continues still to be prosecuted with vigour; and traffic, to a very considerable extent, has also, for a long time, been carried on with the Brazils, Buenos Ayres, Caraccas, Canada, and Nova Scotia.

As will be seen, when we come to speak of its manufactures, Glasgow is the chief seat of the cotton trade; and, accordingly, almost all the cotton wool consumed in Scotland is imported at the Clyde. The direct imports from America were, in 1832, as follow: from Charleston and Savannah 23,856 bales; New Orleans 10,367, and other places in North America 4,053. The imports from South America were also considerable; for, exclusive of those from Brasil, which are not stated; those from Demerara and Berbice amounted to 1,208. From the West Indies the imports were 164, and, from the East Indies, 10,277, which, added to 5,109 from the Mediterranean, gives, for direct imports from foreign parts, 55,034 bales. This great quantity of cotton was not, however, adequate to the demand of the manufacturers, as, in addition, 6,495 bales were imported from London, and 17,413 from the port of Liverpool.

In 1696, a branch of the *Bank* of Scotland was established here, but recalled in the year following for want of encouragement. A like attempt was made in 1731 with similar success. The Ship Bank was the first that belonged to Glasgow, and was established in 1749. The Glasgow Arms Bank was established in 1753; the Thistle Bank in 1761; a branch of the Royal Bank in 1783; the Glasgow banking company in 1809; the Provident Bank in 1815; the Glasgow Union Bank in 1830; and the Western Bank in 1832. The Merchants' Bank, Thomson's & Watson's Banks, were established after the Thistle Bank, but have ceased to do business; as likewise the Arms Bank. There are various branches from other banks.

The *Chamber of Commerce* was established in 1783, the object of which is to watch over the interests and promote the commerce and manufactures of the city. The business of the chamber is managed by thirty directors.

As the commerce of the city extended, it was found necessary, not only for foreign, but more particularly for inland and coasting trade, to increase the facilities for the transfer of goods. We have seen that, about the middle of the seventeenth century, the river was rendered more navigable by cutting away some fords about twelve miles below the city, but, in the course of the next century, this was found insufficient, and, in 1755, an application was made to John Smeaton, the eminent engineer, to report on the best means of deepening the Clyde, who proposed that a lock should be made at a ford a few miles from Glasgow, in order to secure four and a half feet of water at the Broomielaw quay. This proposal was not adopted, notwithstanding its having been sanctioned by act of Parliament. James Watt surveyed the river, and, along with Dr Wilson, of the University, and Mr Barrie, reported that between the quay at Glasgow and the entrance of the Kelvin into the Clyde, two miles down the river, there was, in several places, not more than two feet of water. An act of Parliament was procured, and, in 1775, Mr Golborn, of Chester, had, by an arrangement of jetties, enabled vessels drawing more than six feet of water, to come up at high tide to the Broomielaw; and, in six years after, by the management of the same engineer, vessels drawing seven feet could come up to the quay. Reports were afterwards drawn out by Mr Rennie, Mr Telford, and others, and such improvements were made, by banking and dredging, that, in 1806, a vessel of 150 tons arrived at the Broomielaw, direct from Portugal. In 1816 the river was so far improved that vessels drawing nine and a half feet of water could come up to the quay; and, in ten years after, the deepening was carried to such an extent that the river was rendered navigable for vessels drawing eleven feet of water, so that vessels of 270 tons could discharge their cargoes at the Broomielaw. By the operation of four large dredging machines, and two diving bells (see *Diving bell* and *Dredging*), the river has been greatly improved within the last few years. With such spirit have these improvements been carried on, that, in 1831, vessels drawing thirteen and a half feet of water arrived at Glasgow; and, in the spring of the present year, 1835, a ship arrived at the Broomielaw drawing sixteen and a half feet,—the depth of the water being now eight times greater than it was a century ago. The improvement and extension of the quay or harbour kept pace with the deepening of the river. The extent of the quay, when it was first built in 1688, is not exactly specified; but, in 1792, 360 feet were added to its length, and five years afterwards 360 feet more: and, by successive additions, the length of the quay, on the north side of the river, is at present 3340; and of that on the south side 1260 feet. Operations are now going on to widen the river between the two quays, and also to extend the length of the quay on the south side to Springfield. An idea may be formed of the extent of shipping at the Broomielaw at the present day, and a convincing proof of the effect of the improvements on the river, from the fact, that, during the period from July 9th, 1833, to July 8th, 1834, 4527 vessels arrived at the Broomielaw, amounting in all to 211,464 tons. During the same period, fifty-four steam-boats were plying on the Clyde, and made 7391 trips and 876 half-trips, the tonnage amounting to 616,059½ tons. The shipping has even increased since that time, and it is worthy of remark that the increase consists chiefly of vessels of the greatest tonnage.

The following tables exhibit a comprehensive view of the shipping at the Broomielaw, for the last four years :—

Foreign Arrivals at the Broomielaw above 100 Tons.

	100 to 150	150 to 200	200 to 250	250 to 300
1831	4 France. 1 Spain. 4 Portugal. 4 Mediterran. 14 Russia. 2 Norway. 3 Canada.	1 Spain. 1 Mediterran. 3 Russia. 1 Canada.	1 France. 1 Portugal. 1 Russia. 1 United States. 1 Canada.	1 United States.
1832	5 France. 3 Spain. 3 Portugal. 3 Mediterran. 8 Russia. 1 Norway. 1 Jersey. 3 Canada. 1 West Indies.	2 France. 3 Mediterran. 1 Russia. 1 United States. 2 West Indies. 3 Canada.	1 Mediterran.	
1833	8 France. 13 Portugal. 7 Mediterran. 6 Russia. 7 Canada.	4 France. 1 Portugal. 2 Mediterran. 2 Russia. 2 United States. 2 Honduras. 3 Canada.	1 Canada.	2 United States.
1834	12 France. 1 Spain. 14 Portugal. 6 Mediterran. 12 Russia. 3 Jersey. 3 Canada.	5 France. 5 Mediterran. 1 Russia. 4 United States. 2 Honduras. 4 Canada.	1 France. 1 Russia. 1 Canada.	4 United States. 1 Honduras. 1 Canada.

Foreign Departures from the Broomielaw above 100 Tons.

	100 to 150	150 to 200	200 to 250	250 to 450
1831	3 France. 6 Spain. 7 Portugal. 13 Mediterran. 1 Baltic. 9 Russia. 1 West Indies. 1 S. America. 2 Canada.	1 Baltic. 2 Mediterran. 1 West Indies. 1 Canada.	2 Baltic. 2 Canada.	1 Spain. 1 United States.
1832	2 France. 3 Spain. 2 Portugal. 3 Mediterran. 4 Russia. 2 West Indies. 2 S. America. 3 Canada.	2 S. America. 3 Canada. 1 Africa.	1 Hamburgh.	
1833	3 Spain. 7 Portugal. 8 Mediterran. 9 Russia. 5 West Indies. 5 Canada. 1 Jersey.	1 France. 1 Spain. 3 Mediterran. 1 Baltic. 2 West Indies. 4 Canada. 1 Isle of France. 1 Africa.	1 Canada.	1 United States.
1834	1 France. 7 Spain. 12 Portugal. 13 Mediterran. 6 Russia. 1 United States. 5 West Indies. 1 Canada. 1 Jersey.	4 Spain. 2 Portugal. 2 Mediterran. 6 West Indies. 2 Canada.	1 Russia. 1 United States. 2 West Indies. 2 Canada. 1 Africa.	1 United States.

Foreign Arrivals at the Broomielaw under 100 Tons.

Year.	France.	Spain.	Portugal.	Baltic.	Russia.	Mediterranean.	Western Isles.	W. Indies and Honduras.	Jersey.	[illegible]
1831	2	6	11	2	6	4	6	—	1	-
1832	5	7	8	—	6	6	—	—	1	-
1833	4	9	8	—	7	12	—	1	4	-
1834	6	8	7	1	2	11	—	-	3	-

Foreign Departures from the Broomielaw under 100 Tons.

Year.	France.	Spain.	Portugal.	Baltic.	Russia.	Mediterranean.	Western Isles.	W. Indies and Honduras.	Jersey.	[illegible]
1831	2	3	15	5	4	1	1	—	1	-
1832	3	1	—	—	1	2	3	—	1	1
1833	2	5	9	—	1	4	—	—	1	-
1834	4	6	6	—	—	6	2	—	4	-

Total Arrivals at the Broomielaw above 100 Tons.

Year.	100 to 150	150 to 200	200 to 250	250 to 300
1831	198	18	6	2
1832	175	14	2	—
1833	226	19	2	2
1834	264	48	14	6

The progressive improvements of the river led to the extension of the trade of Glasgow to the ports of the west coast of Scotland, to England, Ireland, the more southern countries of the continent, the West Indies, and America. The extension of trade to the ports of the west coast, as likewise to the ports of England and Ireland, was much increased by the introduction of steam navigation. It is worthy of remark, that the first vessel, propelled by a steam engine, that was made to ply with success on any river in Europe, was the Comet. This steam boat was built by Mr Wood, of Port-Glasgow, for Mr Henry Bell, belonging to Glasgow, who furnished the engine and supplied the plans: the Comet began to ply on the Clyde in January, 1812.—The construction of this vessel was not materially different from that of the steam vessels of the present day; the power of her engine was little more than three horses, and she went at the rate of from five to seven miles per hour. To such an extent has the speed of steam vessels been carried, that in the course of the year 1834, a steam boat, belonging

Glasgow, made a trip to and from Liverpool, in e space of sixty hours, including the time of loadg and unloading her cargoes.

The *inland trade* of Glasgow was for a long time tarded by the expense incurred by land carriage, d from her great distance from the eastern coast, e was precluded from taking any active share in e shipping of the Baltic and German ocean. To viate these inconveniences, an act of parliament as granted in 1768, to cut a canal between the rth, at the Carron mouth, and the Clyde, near almuir, about ten miles below the city. This nal was completed in 1790, together with a branch rminating at Port Dundas, about a mile northest of the cross. The length of the *Forth and lyde* canal is thirty-five miles, the cut to Port undas, two and a half miles. The average breadth top is fifty-six feet, and at bottom twenty feet; the pth, ten feet. The enterprising spirit of the Glasow merchants is well exhibited in this undertaking, hich required twenty-two years for its completion, d the investment of an immense capital, but the ndertaking has amply repaid the shareholders. The early revenue may at present be rated about 47,000. There were originally 1297 shares of 100 each, but so much has their value increased, hat a share cannot now be bought for less than bout £600. The facilities of inland commerce ere still farther augmented, by the cutting of the *Monkland canal*, which was finished in 1791. This anal, which is about twelve miles in length, five eet in depth, and of proportionate width at surface nd bottom, connects Glasgow, at Port Dundas, with he rich district of coal mines in the parishes of Old nd New Monkland. The value of this canal has een somewhat lowered by the formation of the Garnkirk railway, which passes through the same lis-trict, and was opened in 1831. In 1811, a anal was completed, connecting Glasgow with Paisley and Johnstone, a distance of eleven miles. This anal was originally intended by its projector, the earl of Eglinton, to reach to Ardrossan, on the coast of Ayrshire, but has never been completed in consequence of the cheapness of carriage by steam boats on the Clyde. (For an account of the introduction of the swift passage boats in 1830, upon this canal, see the article *Canal*.) In 1822, the *Union canal* was opened, connecting Edinburgh with the Forth and Clyde canal, at lock number sixteen, near Falkirk.

Arts and manufactures. Paper-making commenced in Glasgow about 1679, a few of the merchants having entered into partnership with one De Champ, a Norman, who previously to this had settled at Collington near Edinburgh. A paper mill *as* built at Woodside. Shortly afterwards the Norman built a mill for himself at Cathcart, about two miles from the city. The business was continued at Milnholm by his son-in-law, John Hill, a native of Glasgow, and paper of various kinds continues to be manufactured by merchants of Glasgow. A company for the manufacture of *ropes* was established in 1698, and, in order to encourage this trade, a duty was laid on ropes imported into Glasgow. Another company, called the Glasgow Rope-work Company, was established in 1766, and many other concerns of the same kind have been established in the city since that time. The arts of *tanning* and *brewing* seem also to have commenced at an early period, and are at present carried on to a considerable extent. The manufacture of *delft ware* was introduced in 1748, and of stone ware about 1766, being the first manufactory of the kind in Scotland. In 1730, *glassmaking* was introduced. The first kind made was green bottle glass, but in 1752 a crown glass manufactory was established, and, in 1777, the first flint glass house in Scotland was erected at Finnieston, a suburb of Glasgow. *Brushes* were first made for export in 1755, *copper and tin-plate wares* in 1747, *gloves* in 1763, and *jewellery* in the same year. The manufacture of *saddlery* and *shoes* for export commenced in 1725, and an improved method of preparing saddle leather was instituted in 1735. *Stockings* were first woven in the frame in Glasgow in the year 1740.

George Anderson introduced *letter-press printing* into Glasgow in 1638, having been brought here by the magistrates. He was succeeded by his son, who, however, went ultimately to Edinburgh, and became printer to the king for Scotland. Robert Saunders was the next printer in Glasgow. Saunders was for a time the only printer in the west of Scotland. He was succeeded by his son, Robert, but the works which he produced were neither elegant nor accurate, a character which must be given to all the printers in Scotland at that time. This low state of the art must be mainly attributed to the monopoly enjoyed by Anderson by the royal grant. So late as the year 1713, the university was under the necessity of sending to Edinburgh to get even a single sheet correctly printed. In 1713, Mr Thomas Harvie, a student of theology, made overtures to the university to become their printer. No decided arrangement was, however, entered into. Hugh Brown printed here, from 1712 to 1720, on his own account. One work has been preserved, printed by James Hart, printer to the university, having a date 1714, and another by Donald Duncan, also printer to the university, having the date 1715. In 1718, we find James Duncan, letter founder in Glasgow; but his types were no way remarkable for accuracy or elegance. James and William Duncan printed in partnership from 1718 to 1720, when they separated. James, however, prosecuted the business till 1750. During the same period there were four other printers of less note in the city; but the art in Glasgow received its first great improvement from Robert Urie, who commenced business in the Gallowgate in 1742. He printed the Glasgow Journal, which commenced in July 1741, and is continued to the present day; but before that time there had been a newspaper published here, called the Glasgow Courant and the West Country Intelligencer, which was commenced in 1715, and terminated at the sixty-seventh number in the following year. The various classical and other works issued from the press of Robert Urie, are still preserved as fine specimens of correct and elegant printing, and to him is due the merit of having laid the foundation of that fame which Glasgow has long enjoyed for the accuracy and beauty of her typography. Robert Foulis, who had previously been a bookseller, commenced business as a printer, in 1742, being assisted by two of the professors of the University in the correction of the press. In a few years after he was joined by his brother Andrew. Their valuable editions of the classics are too well known to require any praise here. As a proof of the great care that was taken to ensure correctness, it may be stated that the proof-sheets of their celebrated edition of Horace were laid open for inspection in the university, and a reward offered to any one who should detect an error. Robert travelled through a great part of the continent and sent to Glasgow an engraver, a copper-plate printer, and a painter, with the view of forming an academy for the fine arts. The Foulises held apartments from the university, in which their business was carried on, and they were allowed the faculty hall, immediately above the gateway of the college, as an exhibition room for their paintings and other works of art. This design, so creditable to the

projectors, did not prove successful; but although the sanguine hopes of the Foulises were not realised, yet they created a spirit for the cultivation of the fine arts. Among other benefits arising from their efforts, it is sufficient to state, that they first gave encouragement and direction to the genius of Tassie, who afterwards became so eminent as an engraver of gems. Messrs Foulis, in conjunction with Mr Ged, made some improvements on stereotype-founding, and afterwards, in conjunction with Mr Tilloch, the Foulises printed several volumes from stereotype plates in a very superior style. *Type-making* was commenced, in 1740, by Mr, afterwards Dr Alexander Wilson, professor of astronomy in the university, and he lived to see his establishment the most extensive and celebrated of the kind in Europe. The business was, after his death, carried on by his descendants, and continues still to be regarded as unrivalled in type-founding, for beauty of form and quality of metal. In 1834, the present proprietor left this city, with all the materials and workmen, and removed to London, which forms the principal mart of that manufacture. Among the more recent printers of Glasgow may be mentioned Messrs Duncan, printers to the university, whose editions of many of the classics, as well as of English works, are highly esteemed. Their edition of *Newton's Principia*, was pronounced by Laplace to be the most lasting monument ever erected, by the British nation, to their illustrious countryman. There are about thirty master-printers now in the city, many of whom carry on business on a considerable scale; the establishment of Mr George Brookman, in particular, has long been distinguished for its workmanship in the various departments of type-making, stereotype-founding, and letter-press printing.

The refining of *sugars* commenced here during the commonwealth, by which business, as likewise by the distilling of spirits from molasses, many of the Glasgow merchants amassed large fortunes; these were denominated *sugar lords*, as the Virginian merchants were denominated *tobacco lords*. For a long time the sugar trade was carried on without the merchants paying any excise duty, in consequence of which, an action was brought against them, and, in 1719, the court of exchequer found them liable to a fine of £40,000 for bygone duty.

Glasgow is situated in a district of country rich in coal mines, a position to which she owes much of her prosperity in the manufactures. The quantity of *coal* brought to Glasgow in the year 1831, amounted to 561,049 tons, 124,000 of which were exported, the remainder being used for home consumption. Vast quantities are exported to the West Indies and other parts. There are eleven *iron works* in Scotland, not one of which is more than thirty miles distant from the city, and more than the half of these are in the neighbourhood. *Ironmongery* commenced on a large scale in Glasgow, about 1732, and in six years after, slitting mills and forges were erected. In 1766, files were made at Strathbungo, near Glasgow, and twenty-eight years afterwards a large file manufactory was erected on the Molendinar burn, to the north of the city, where files were made superior to those manufactured in any other part of Britain. Much of the iron used in Glasgow, is employed in making *steam engines and machinery* of all descriptions. The first idea of the low pressure steam engine was conceived here by James Watt, and the first model put in operation at the Delft house, at the Broomielaw. After the expiry of his patent, the manufacture of steam engines commenced in Glasgow, and increased rapidly, so that there are now above a dozen establishments carrying on this business, or making machinery of other descriptions. It
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branch of industry. A tax was proposed to be laid on the cotton manufacture, which would doubtless have crushed it most materially, but from the strenuous exertions of Mr Colquhoun, a merchant of Glasgow, it was abandoned as impolitic. So early as 1780, cotton factories had been erected at Rothesay, Barrhead, Ballindalloch, &c. Shortly afterwards a large spinning factory was erected at Lanark, by Mr D. Dale, a Glasgow merchant, in which concern Sir R. Arkwright held a share. The mill was originally worked by the hand, but Mr William Kelly of Glasgow, at that time residing at Lanark, took out a patent in 1792 for driving it by power. The progress of the cotton manufacture in Scotland was so rapid, that, in 1789, thirty-nine factories had been erected, all moved by water power. The number of spindles was estimated to be 312,000, belonging chiefly to merchants of this city. In 1834, there were 134 cotton mills in Scotland, nearly 100 of which belonged to Glasgow. In Lanarkshire alone, there are seventy-four cotton mills, two muslin, and two silk factories, driven by power equivalent in all to 2914 horses, 540 of which is derived from water wheels, and the remainder from steam engines. In these factories 17,949 persons are employed. The increase of the cotton trade in Glasgow, may be estimated from the following statements of the imports of cotton wool into the Clyde, for various years :—

In 1775, there were imported	508 bags,	or 127,160 lbs.
— 1790,	6,509	1,797,504 —
— 1812,	43,080	bales.
— 1824,	54,708	—
— 1834,	95,703	—

Or about one-fifth of all the cotton imported into Britain. The imports for 1824, and 1834, are given by Dr Cleland. As the quantities imported for Scottish manufacture, and as the quantity for Glasgow alone, must be at least three-fourths of this, we may infer that, during the year 1834, not less than 71,777 bales were consumed by the manufacturers of this city.

Since 1831, the spinning of Cashmere yarn has been carried on here, and is spun of a quality equal to that manufactured in France. In 1833, the spinning of Merino yarn, was commenced here, and is also carried on with success. Both of these species of manufacture, were introduced by Captain C. S. Cochrane, of the royal navy, who brought them from Paris.

Two *power looms* were brought to Glasgow in 1793, by Mr Lewis Robertson, of Dumblane. He fitted them up in a cellar in Argyll Street, where they were kept working for a considerable time. They were at first driven by the hand, but subsequently they were driven by a large dog walking in a drum. The nature of the construction of these looms, was communicated to a bleacher at Milton, and during the course of the following year, forty power looms were erected at that place. In 1803, Mr J. Monteith had 200 power looms at work, in his spinning factory at Pollocshaws, about three miles from Glasgow. Since that period the number of power loom factories has been greatly increased, and at present there are 15,127, and additional factories are in the course of erection. Taking the average produce of one power loom, to be fourteen yards per day, the price of each yard 4½ pence, and the number of working days in a year to be 300, then the number of yards produced by these looms in one year, will be 63,533,400, the value of which may be estimated at £1,191,251 : 5. There are besides about 32,000 hand-loom weavers employed by the manufacturers of this city, in the fabrication of all the varieties of plain and fancy cloth. Several improvements in power loom weaving have been made at the factories belonging to Glasgow companies. Tweels were first wrought by power at Dumbarton in 1809, and checks in the following year. Figured cloth was woven by power about 1819, by Mr Perry of Glasgow, and at a later period lappets were woven by Messrs Reid. Since the latter end of 1832, tweeled cloth for furniture mounting, coach lining, and other purposes, has been woven in the power loom, by Messrs Somerville & Sons, at their factory on the south side of the river opposite the public green. This cloth is taken from the loom more beautiful in texture and having a finer finish, than cloth of the same fabric woven in the hand-loom and passed through the calender. The invention of the ingenious mechanism by which this is accomplished, is due to Mr John MacBryde, manager of the above-mentioned establishment. Tambouring by machinery, was first effected in this city, and is still carried on here. The tambouring machine was the invention of Mr Duncan. Messrs Robert and Duncan Wright, two brothers, invented a machine in 1831, for making what are called buds, which, when attached to the cloth, give it all the appearance of having been sewed by the needle in the ordinary way. These buds are sent from Glasgow to all parts of the kingdom, and from the beauty and endless variety of patterns into which they may be formed, they are at present in great demand. With this article, one woman will embroider as much cloth in one day, as can be done in the ordinary way by fifteen.

An extensive *bleaching* work was established in 1730, at Campvere, by Mr John Gray. In 1762, Mr M'Gregor introduced the Irish method of bleaching, and, in 1787, he commenced bleaching by chlorine liquor, under the direction of James Watt. This is the first place in Britain, where chlorine was employed in bleaching. In 1799, Mr Tennent, of this city, took out a patent for the manufacture of bleaching powder or chloride of lime and Glasgow still continues to be distinguished for making this important article. In 1785, the dyeing of *turkey red*, was commenced for the first time in Britain, by Mr G. Macintosh, under the direction of M. Papillon, and the greater portion of the calico printers in Britain were supplied with iron liquor about the same period by Mr W. M'Aslan of Tradeston. The discharging of turkey red on the formation of *Bandana* handkerchiefs was commenced in 1802, for the first time in Europe, by Messrs Henry Monteith & Co. of Glasgow, and their establishment is the largest of the kind in the world. At present there are upwards of forty calico printing establishments belonging to Glasgow.

In concluding this necessarily brief view of the arts and manufactures of Glasgow, it will be observed, that as this city was the first place where mechanics' institutions were established, so also was it the place where many important movements in art and science originated. Here James Watt made his first model of the steam engine; and here the first steam boat of Europe began to ply. Here the manufacture of inkles, of waterproof cloth; the machinery for tambouring, sewing, and the power looms were first brought to work with success, or received their greatest improvements; here also the chloride of lime was first manufactured, and here bandana discharging, turkey-red dyeing, and bleaching by chlorine, were first brought into practice.

Population.—The works of Dr Cleland furnish abundant data regarding the population of Glasgow. In the year 1560 he estimates it at 4,500; in 1610, at 7,644; in 1660, 14,678; in 1688, 11,948; in 1708, 12,766; in 1712, 13,832; in 1740, 17,034; in 1755, 23,546; in 1763, 28,300. The following includes the suburb parishes of the Barony and Gorbals:—In 1780, 42,832; in 1785, 45,889; in 1791, 66,578; in 1801, the first government census, 77,385; in 1811, 100,749; in 1821, 147,043; in 1831, 202,426.

The following results refer to 1831:—

Births.—Males,	3,527; Females,	3,341.
	Excess of Males,	186.
Burials.—Males,	2,781; Females,	2,484.
	Excess of Males,	217.
Males under 5 years,	15,472; Females,	14,933.
	Excess of Males,	567.
Males under 10 years,	28,543; Females,	27,425.
	Excess of Males,	1,114.
Males under 15 years,	29,660 Females,	28,155.
	Excess of Males,	995.
Males under 20 years,	47,529; Females,	50,411.
	Excess of Females,	2,882.
Males under 30 years,	63,706; Females,	73,419.
	Excess of Females,	10,713.
Males, entire population,	93,724; Females,	108,702.
	Excess of Females,	14,978.

The births, including 471 still-born, being 6868, and the population 202,426, there is one birth for every 29 47-100th persons.

The burials being 5265, and the population 202,426, there is one burial for every 38 4-100th persons.

The marriages being 1919, and the population 202,426, there is one marriage for every 105 48-100th persons.

The births being 6868, and the number of marriages 1919, there are 3 57-100th births to each marriage.

The children were baptized as follows:—

By Clergymen of the Established Church,		3123
By Do.	Secession Church,	664
By Do.	Relief Church,	671
By Do.	Roman Catholic Church	915
By Do.	Scotch Episcopalian Do., Independents, Methodists, and other denominations, including births among Baptists, Society of Friends, Jews, &c.,	1024
Still-born,		471
		6868

The number of families being 41,965, and the population 202,426, there are 4 83-100th persons to each family.

The population in 1821, consisted of 103,600 Scotch, 95,554 Irish, 2,919 English, and 353 Foreigners; of whom 104,162 persons were of the Established Church, 71,259 were Dissenters or Episcopalians, and 26,955 Roman Catholics.

Householders.—Males—Married Men,	25,032	} 33,259	
" " Widowers,	1,730		
" " Bachelors,	1,427		
" Females—Widows,	5,324	} 8,706	
" " Spinsters,	1,382		
Total Householders,			41,965

Authorities.—There have been various histories of Glasgow published, but none of great merit. The first in point of time is that "by John M'Ure alias Campbell," published in 1736. M'Ure was "Clerk to the Registration of Seisins and other Evidents for the district of Glasgow," and from "a true effigy" of him, which graces his volume, we are given to understand that he was seventy-nine years of age when he published it. The book furnishes abundant proof both of the age and dotage of the author; yet so earnest and explicit is he in the admiration of his subject, that it is difficult to avoid venerating the old driveller. A verbatim reprint of M'Ure was published in 1830, by Messrs Macvean and Wylie, to which were affixed an interesting appendix and notes. "The History of Glasgow, by John Gibson, merchant in Glasgow," published in 1777, displays much original research, and is valuable to the local antiquary. "The History of Glasgow, by Andrew Brown," published in two volumes, 1795-97, has little to recommend it. "Denholm's History of Glasgow," first published in 1797, and several times reprinted, is a respectable performance, as is also "Chapman's Picture of Glasgow," of which a third edition was published in 1820. Cleland's "Annals of Glasgow," (1816, 2 vols.); his "Rise and Progress of the City of Glasgow," (1820) and other works or modifications of works on the same subject, are all valuable in a statistical point of view, and have been of much service to political economists and others in drawing deductions. Of miniature accounts of Glasgow, the best is that published in 1826, under the title of "Glasgow Delineated," a work drawn up with care, and displaying a good knowledge of the subject. The section "Lanarkshire," in volume third of Chalmers's "Caledonia," must not be overlooked by those desirous of acquainting themselves with the ecclesiastical history of Glasgow.

GLASS doubtless owes its origi
informs us that Sidon was the fir
for its glass works, and that the a
was not introduced into Rome
Tiberius. He further states, th
Nero, the art of making vases a
transparent glass, was invented
opinion that the Egyptians carried
est perfection; and that the glas
capital of the Thebaid, were the
factory of this material. The E
to the same author, performed
operations in glass-cutting, and
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remains of the ancients, in glass, a
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casts of intaglios often imitate th
ent colours in the original. These
served the impressions of many
are lost. Of the larger works in
some fragments: they served as
walls of palaces. The most cele
this kind is the cameo described by
preserved in the Vatican: it is an
glass, about eight inches by six, r
chus and Ariadne, with two satyrs.
beautiful specimens of this art are th
with figures in relief: they were so
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and so delicately executed, that they
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Portland vase is the only one of this
entire. It was formerly called the *Ba*
belonged to the Barberini palace at R
a foot high, and was at first describ
(See *Portland vase.*) The ancients

ed with the art of painting on glass. *See a subsequent division of this article.*

The Venetians were long celebrated for their glass manufacture. France succeeded to the pre-eminence. Britain did not become distinguished for her glass until about the commencement of the sixteenth century. The British plate-glass company was established in 1773, at Ravenshead, in Lancashire. Before this time, all our plate glass was imported from France, but we now manufacture it superior to any other nation in Europe. The value of the annual produce of glass in Britain, may be estimated at £2,000,000; giving employment to about 50,000 individuals. The excise laws relative to the glass manufacture, are complicated in the extreme, enforced under heavy penalties, very numerous and eminently qualified, to check the improvement of this highly useful branch of industry in this kingdom. So injurious has their influence already been, that, notwithstanding the very heavy duty on imported glass, large quantities are brought to this country from the continent.

Glass is formed by the fusion of silicious matter, such as powder-flint, or fine sand, together with some alkali, alkaline earth, salt, or metallic oxide. The nature of the glass will depend upon the quality and proportion of the ingredients of which it is formed; and thus, an infinite variety of kinds of glass may be made, but in commerce, five kinds only are recognised, *i.e.* 1st. Bottle or coarse green glass. 2nd. Broad or coarse window glass. 3rd. Crown-glass, or the best window glass. 4th. Plate-glass, or glass of pure soda. 5th. Flint-glass or glass of lead.

The physical properties of glass are of the highest importance. One of these is that of preserving its transparency in a considerable heat, and remaining almost entirely without extension. Its expansibility is less affected by heat and cold than that of any other solid substance which has been accurately examined. On this account, it is especially fit for pendulums. Its great ductility, when heated, is also a remarkable property. It can, in this state, be drawn into all shapes, and even be spun into the finest threads. It may be cut by the diamond, and also by a hot iron, although the last manner is rather unsafe.

Before describing the process of manufacturing the different species of glass, it will be necessary to premise a few particulars, relative to the construction of glass-houses, furnaces, and the pots or crucibles in which the materials are fused.

Glass-houses are commonly constructed of brick, and made of a conical form, the diameter of whose base varies from eighty to 100 feet, the perpendicular height being nearly the same. A large vault is made in the interior of the cone, extending from side to side, and of sufficient height to allow workmen to wheel in and out rubbish from beneath the furnace, which is placed over the vault, and separated from it by means of an iron grating, on the upper side of which, the fuel is laid. The construction of furnaces, is a matter of the greatest moment, and much judgment is required in the selection of such materials as shall best resist the destructive effects of the high temperature, to which they are subjected, as likewise in determining the form best fitted for the conduct of the operation, and the economy of fuel. Three different kinds of furnace are employed by the glass maker; 1st, The calcar or fritting furnace, is that in which the materials used for the formation of the glass, are calcined, and a chemical union between the ingredients commenced, forming what the workmen call a frit. This furnace is in fact an oven, the fuel being placed at one side, and the flame made to reverberate from the crown or roof back to the frit, care being taken to keep the heat at first below that point at which the alkali would volatilise, and throughout below that point at which the frit would be fused. 2nd, The working furnace is that in which the frit, placed in earthen pots or crucibles, is melted and formed into glass. These crucibles are formed of Stourbridge clay, carefully freed from impurities, powdered and worked with warm water, and steeped in a cistern until brought to the consistence of a paste. It has been found highly conducive to the durability of these crucibles to form them of a mixture of the Stourbridge clay, with the powder of old crucibles in the proportion of about five parts of the former to one of the latter, and this practice is now universally adopted. After the crucibles have been formed of the required shape and dimensions, they are left in the apartment where they have been made for at least a year, in order that they may be completely dried, and then they are subjected to the action of a furnace, the heat of which is made gradually to increase until the temperature has nearly reached that of the working furnace. The size and shape of the crucible will vary according to the purpose for which it is intended. The usual dimensions of these crucibles is, depth 40 inches, diameter at top 40, and at bottom 30. Those for bottle and crown glass are open at top, as represented in fig. 6, Plate LXII., and are made from three to four inches in thickness; those for flint glass, shown in fig. 5, are covered at the top and are made from two to three inches in thickness. Twelve crucibles are commonly placed in one furnace at equal distances from each other, round the circumference of the furnace, each pot being opposite to an opening in the wall of the furnace in order that the crucibles may be charged or discharged by the workman from without. The working furnace is of a circular form externally, and made to terminate in a chimney, the interior being an arched dome. The fire on the grating at the centre of the furnace is supplied with air from the vault below, and the flame and hot air having acted upon the crucibles placed round the fire, pass out by the chimney and escape through the top of the glass-house. Very lately an improvement has been made in the working furnace of Messrs Pellatt & Co. of London, who have effected a great saving of fuel by constructing two furnaces each of half the diameter of a twelve crucible furnace, and terminating in one chimney by means of flues, as may be seen in fig. 3. By this contrivance the crucibles are brought nearer to the fire, for the area of one of these small furnaces is only one-fourth of the area of the twelve crucible furnace, while its circumference is only the half of it, and will therefore contain six crucibles. When the glass has been fused in the working furnace, and fashioned into the required form by means which will be afterwards described, it is carried to another furnace or oven, the temperature of which is somewhat lower than that necessary for fusion, the glass is suffered there to remain for several days, the heat of the oven being allowed to diminish by slow degrees until the fire be quite extinguished. This furnace is called the *annealing furnace*, and the process of allowing the glass to cool there is called *annealing*. Unless this process be carefully managed, the articles formed in the glass house can be of no use from their liability to break by the slightest scratch or change of temperature. The annealing furnace is shown in fig. 2 one of the doors of the arch being shown open and the other shut.

Common green or bottle glass is formed of the coarsest materials, such as coarse sea or river sand, lime, and clay, and the most inferior and cheap alkalies such as soap boilers' waste, and the slag obtained in the smelting of iron ore. When soap boilers' waste is

employed, it is combined with about a fourth part by measure of sea or river sand, the proportion will depend on the quantity of alkali in the waste. A cheap mixture for this kind of glass may be made of common sand and lime, with a little blue clay and sea salt. The soap waste is calcined, being kept at a red heat for about 30 hours, in an arch of the furnace kept for that purpose. It is then withdrawn and bruised along with the proper proportion of sand, and the mixture being put into another arch is calcined for about 12 hours. The crucibles are now filled with this red hot calcined frit, which being kept at a great heat for twelve or fifteen hours, glass is formed fitted for being fashioned into the required forms. The manipulations of the glass blower in fashioning bottle glass into various forms, are in general the same as those performed by the flint glass blower, which we will describe afterwards. Wine and beer bottles, which are required to be all of a certain capacity, are blown in moulds, so that their containing portion may be as nearly as possible of the requisite size. The articles being made, are carried to the annealing furnace. It is worthy of remark that green bottle glass is preferable to all other kinds for vessels required to contain corrosive substances; it is also less fusible than flint glass, and therefore better calculated for many chemical purposes.

Broad glass is the coarsest description of window glass. This glass is usually formed by a mixture of two parts by measure of soap-boilers' waste, one of kelp, and one of cleaned sand. When these materials have been calcined for about twenty-four hours, the frit is removed, while red hot, on iron shovels, to the crucibles of the working furnace, where being kept under the action of a great heat for twelve hours, it becomes fused and fit for being blown. The melted glass is taken out of the crucible upon the end of an iron tube about five feet in length. The end of the tube being heated, is dipped into the pot, and then slightly turned upon its axis, by which means a quantity of the liquid glass collects upon it. The tube is then withdrawn, and should there not be sufficient, it is exposed for a little to the cold air, until its surface harden, when it is returned to the pot, and an additional quantity of glass taken on. The workman then blows in at the other end of the tube, and the glass assumes the form of a globe usually about a foot in diameter.* The globe is then presented to the mouth of the furnace; a longitudinal crack is produced by touching it with an iron bar dipped in cold water; and on the other end of the tube being stopped, the expansion of the air causes the globe to burst in its weakest part, when it is cut open by a pair of shears; and being laid open on a flat iron table, forming a sheet of window glass, which is carried to the annealing oven.

Crown, or the best window glass, is differently formed by different manufacturers. According to Dr Ure, good crown glass may be made of twenty parts by weight of fine purified sand, together with thirty-three of the best ground kelp; but the quality will be much improved by the addition of 1½ of slaked lime. Very superior crown glass is made from 120 parts by weight of white sand, sixty purified pearl ash, thirty of saltpetre, two borax, and one arsenic, together with a small quantity of manganese. The sand, after being thoroughly washed, is calcined in a reverberatory furnace for eighteen or twenty hours, when it is taken out and immediately plunged into cold water. The sand is then mixed with the kelp in a state of very fine powder, and the mixture is carried to the fritting furnace, from whence it is taken to the crucibles in the working furnace, and there mixed with about an eighth part of its weight of broken crown glass, called by the workmen cullet. The furnace is heated to a very high temperature, the crucibles being supplied with more frit as that already in melts, until the pots are full. In about thirty hours the whole is converted into liquid glass. The furnace being now reduced in temperature, the glass is allowed to cool a little for about two hours, when the crude matter on the top of the crucible is skimmed off. The workman then introduces the end of the iron tube formerly spoken of, and collects some glass, withdrawing and returning the tube twice or thrice, until he has collected a sufficient quantity, which for window glass is usually about ten pounds. The tube is now held perpendicularly, for a few seconds, with the loaded end down, after which a regular shape is given to the glass, by rolling it on a smooth iron table, and the operator, by blowing into the tube, causes the glass to swell into a pear shaped hollow vessel. It is again heated by being held a little at the mouth of the furnace, and blown still larger, the end being pressed against an iron bar, which process being repeated several times, the glass assumes a spherical form. This globe is again heated, and the back opposite the end of the rod pressed against a flat surface, and made to assume the form of an oblate spheroid. It is then held over a box, the tube being in an horisontal direction, and an iron rod, called the punty, the end of which having been previously dipped in melted glass, is applied to the centre of the flat side opposite the tube. The punty is then detached by the application of a piece of cold iron, leaving a hole in the spheroid of about two inches in diameter. The glass is now held to the mouth of the furnace, and the tube turned on its axis, slowly at first, but gradually increasing as the glass expands, until it at last assumes the form of a thin circular plate of from three to four feet diameter, and uniform in thickness, with the exception of a thick part in the centre where the tube is attached, called the bull's eye. The tube is detached by the touch of a piece of wetted iron, and a slight stroke, the plate being laid on ashes; it is then conveyed to the annealing furnace. The crown glass house is shown in fig. 1.

Flint glass, or crystal. Powdered flint was formerly employed in the manufacture of this species of glass; but from its great expense, fine white sand has for many years been substituted. Dr Ure states it to be commonly composed of purified linn sand 109 parts, of litharge, or, what is better, red lead, sixty parts, and of purified pearl salt, thirty parts. In order to correct the green colour given by the oxide of iron which the sand contains, a small quantity of black oxide of manganese, with a little arsenic, is added; and sometimes a little nitre is employed in the composition. The sand is thoroughly washed, then calcined, and afterwards passed through a fine sieve of forty or fifty passes in the inch. The materials of which the glass is to be formed are now intimately mixed and pounded, and without being fritted, they are at once carried to the crucibles of the working furnace, the crucibles having been previously brought to a white heat; and as the mixture fuses, more of the ingredi-

* A section of an improved tube is shown in fig. 7. It consists of a tin plate tube, an inch and half in diameter, and fifteen inches long. One end of the tube is terminated in a cap which may be fitted on to one end of the long iron tube, on whose other end the liquid glass is lifted. The interior of the small tube is furnished with a spiral spring, as shown in the figure, which spring acts upon a solid air-tight piston, tending to force it to the end of the tube, but prevented from coming out by a latch. If the piston be pressed inwards, the air within the tube will be compressed, and the requisite degree of expansion given to the glass at the other end. The great advantage of this simple instrument consists in the means it affords of regulating the degree of expansion given to the globe of glass, and of rendering blowing with the lungs unnecessary.

ents must be added to fill the crucible. The furnace is kept at a very high temperature; and the whole of the materials being fused, a white scum collects upon the top, called glass gall or sandever, which must be removed as it forms, and is useful to refiners of metals as a flux. Another kind of sandever is found in the crucibles after the glass has been withdrawn. When the glass becomes translucent, in order to render the glass workable the temperature of the furnace is diminished until the glass becomes a tenacious mass, so that it may be drawn out into a filamentous thread. The bringing of the glass to this state from the first changing of the crucibles occupies about two days. The iron tube is now put into the crucible, and the required quantity of glass lifted out upon its end. The tube is then held perpendicularly with the loaded end nearest the ground, and held for a few seconds, so that the glass extends beyond the end of the tube, after which it is rolled into a cylindrical form on a smooth iron table called the merver. The workman then gives the glass the form of a hollow globe by blowing through the tube, the process being repeated several times by reheating at the furnace, and blowing until the globe become of the required thinness. The globe may be elongated by dexterously whirling it in the air. The punty formerly described is now applied to the end of the glass farthest from the tube, and the tube is detached by touching the glass with a piece of cold wetted iron, and then giving it a smart stroke. The workman now heats the glass on the punty, and sitting down upon a chair with smooth arms, he lays the punty upon them in an horisontal direction, and rolling the punty with his left hand backwards and forwards, he gives the glass a rotatory motion, while with an instrument in his right hand, somewhat resembling a pair of sugar tongs, he enlarges or contracts the different parts of the vessel, until it assumes the requisite shape. The workman is also provided with a pair of shears, a scale of inches, and a pair of compasses, so that he may model the material with the greatest accuracy, and if the vessel be complex in form, the glass must be occasionally re-heated during the manipulation. The article is then detached from the punty, and carried to the annealing furnace.

Many of the articles after coming from the annealing furnace are sent to the cutter or grinder. The operation is performed by putting in motion wheels of various diameter, and of various edges, some of which are made of iron, others of stone, and some of wood. The operation is commenced at the iron wheel, whose rim is supplied with sand and water from above, and the utensil being applied to the edge of the wheel, is ground to the required form, and then smoothed on the stone wheel, when it is taken to a wheel where a finer substance is employed for grinding, such as rotten or pumice stone, and at last polished on a wooden wheel, with putty or crocus as a polisher.

Various ornamental forms are given to the surface of glass vessels by metallic moulds. The mould is usually of copper, with the figure cut on its inside, and opens with hinges to permit the glass to be taken out. The mould is filled by a workman, who blows fluid glass into its top. The chilling of the glass, when it comes in contact with the mould, impairs its ductility, and prevents the impression of the figure from being sharp. Some moulds, however, are made in parts, which can be suddenly brought together on the inside and outside of the glass vessel, and produce specimens nearly equal to cut glass.—

Plate glass is of two descriptions. The first which we shall notice, is made of similar materials with crown glass, and used for windows or for frames of pictures, and called British sheet glass. The material being prepared as described in crown glass manufacture, the workman collects the metal out of the crucible on the end of his tube, he places it horisontally upon a block of wood, formed so that by turning the tube, the glass is made to assume a cylindrical form while the attendant by means of a wetted sponge throws a fine stream of water upon the block. This being done, the workman by blowing into the tube, and still continuing to turn it, increases its diameter to about ten inches, and then by re-heating it, and swinging it in the air, he also increases its length to about forty inches. Its end being now heated and the end of the tube stopped, the end nearest the fire bursts, and by the rapid turning of the tube on its axis, the end expands, and the cylinder's side becomes straight. The glass is now separated from the tube, and being allowed to cool a little is split lengthwise by drawing a red hot iron rod along its inner surface. The cylinder is now placed in a highly heated furnace, upon a smooth stone, with its split side upmost, and falls out by its own weight into a flat plate or sheet, which being rubbed smooth with a piece of charred wood is carried to the annealing furnace. In crown glass, made in the common way, it is difficult to procure a sheet of 548 square inches in area, but the sheet glass now described, may be made of 1800 square inches in area.

The composition of plate glass commonly so called, is stated by Parkes to be linn sand, 720 lbs., alkaline salt containing 40 per cent. of soda 450, slaked lime sifted 80, saltpetre 25, and broken glass 425; a mixture calculated to make 1200 lbs. of plate glass. Another good composition has been stated to be, white sand 300 lbs., soda 200, lime 30, oxide of manganese 2, oxide of cobalt 3 ounces, and fragments of glass equal to the weight of sand. The sand, lime, soda, and manganese are intimately mixed, and fritted for about six hours, and before the process is finished, the other ingredients are added. The large crucibles in the working furnace are now filled, and smaller ones are placed beside them in the furnace, which is then to be raised to the greatest possible heat, when the materials in the large crucibles are thoroughly liquefied and skimmed, the small crucibles are filled with the liquid glass by means of a copper ladle. These small crucibles are not taken out of the furnace for three or four hours. When the glass in the cuvette or small crucible is deemed fit for casting, it is taken out of the furnace by means of a crane mounted on a low carriage, and moved to a smooth plane horisontal table of iron, in which the plate is to be cast. The surface of the glass previously to being cast is skimmed, and the outside of the crucible as well as the casting table cleaned. The table has ribs of metal along the sides of depth equal to the intended thickness of the plate, and a temporary rib is placed at the further end of the table. The contents of the crucible are now poured upon the table, and a large copper cylinder moved along upon the ribs spreads the glass into a broad uniform sheet. Twenty men are required to conduct this operation, during which the room is kept quiet, and as much as possible freed from currents of air, which might injure the uniformity of the plate. On this department of the process, Mr Parkes observes, that "the variety of colours which the plate exhibits immediately after the roller has passed over it, renders this an operation, far more splendid and interesting than can well be described." When the plate has set, it is examined, and should any bubbles or flaws appear, it is divided by cutting through them, and when fairly fixed, it is carried to the annealing furnace, where it remains for about a fortnight. The table, crane, and roller are shown in fig. 4. The plate

is now withdrawn, and squared upon the edges, by being cut with a rough diamond, and then chipped on the under side. The plate is now cemented by means of Paris plaster, to a board, and laid horizontally with its face uppermost, when another plate similarly fixed is inverted over it. Ground flint and water is placed between them, and the upper plate being set in motion by machinery, the surfaces of both plates are ground plane. The sides are now reversed, and in like manner ground with the flint powder, great care being taken that the plates be made uniformly thick throughout. The same process is repeated with emery of successive degrees of fineness, after which the plates are examined, and the flaws cut through, forming the sheet into smaller plates. The polishing is then commenced, which is effected by rubbing the plate with a cushion made of stuffed woollen cloth smeared with wetted crocus, or brown-red oxide of iron.

Drops of Glass, which have been let fall, while melted, into water, commonly called *prince Rupert's drops*, assume the form of an oval body, terminating in a long slender stem. They are also called *glass tears*. The large part may be struck with a hammer, or filed, without breaking, but if the stem is broken, the whole flies to pieces.

Glass Threads. The great ductility of glass enables it to be drawn into the finest threads. A piece of glass is held over the flame of a lamp, until it becomes soft: a hook is then fixed into it, and it is drawn out into a thread. The hook being fixed in the circumference of a small revolving cylinder, the glass thread is wound round the cylinder. Réaumur succeeded in obtaining these threads as fine as a spider's web.

Glass Windows. The mode of preparing glass was known long before it was thought of making windows of it. Houses in Oriental countries had commonly no windows upon the front, and towards the court-yard they were provided with curtains or a movable trellis-work; and, in winter, they were covered with oiled paper. The Chinese made use, for windows, of a very fine cloth, covered with a shining varnish; and, afterwards, of split oyster shells. They had also the art of working out the horns of animals into large and thin plates, with which they covered their windows. In Rome, the *lapis specularis* supplied the place of glass, and, from the description, seems to have been nothing but thin leaves of talc. Rich people had the windows or openings in their baths filled with thin plates of agate or marble. It was hastily concluded that glass was used for windows in the time of Titus, because fragments of glass plates have been found at Pompeii, which town was destroyed in his reign; but the first certain information of this mode of using glass is to be found in Gregory of Tours, who speaks of the churches having windows of coloured glass in the fourth century after Christ, that is, in the reign of Constantine the Great, when they were to be seen in the church of St Paolo Fuori le Mura. In France, talc or isinglass, white horn, paper soaked in oil, and thin shaved leather were used instead of glass. The oldest glass windows at present existing are of the twelfth century, and are in the church of St Denis: they appear to have been preserved as part of the old church, which was erected before the year 1140, by the abbot Sugar, a favourite of Louis le Gros. Sugar had sapphires pounded up and mixed with the glass, to give it a blue colour. Æneas Sylvius accounted it one of the most striking instances of splendour which he met in Vienna, in 1458, that most of the houses had glass windows. Felibien says that, in his time (1600), round glass disks were set in the windows in Italy. In France, on the other hand, there were glass windows in all the churches, in the sixteenth century, although there were but few in dwelling-houses.

Glass, Painting on. This art was, perhaps, known to the ancients, as Morisoli attempts to prove from passages in Seneca and Vopiscus Firmius; and some persons consider the fact established by a relic of art, described in Buonarotti's Observations upon some fragments of ancient Vases of Glass, &c. Painted glass was much used, formerly, to ornament windows in churches, and other public buildings, and in unison with the whole style of Gothic churches, throws a gloomy shade over the whole interior. Speth distinguishes between the painting on glass, or glass-enamel, and two inferior kinds of the art; one painting upon, or rather behind, glass which is not perfectly transparent; and the other, which requires transparent glass, but makes use only of coloured varnishes, as lacker, verdigris, &c., which do not resist moisture. Painting on glass, properly so called, had its origin in the third century, about the time of the first specimens of mosaic. The more extensive knowledge, as well as use, of coloured glass, was communicated from France to England; and from thence, in the eighth century, by means of missionaries, to Germany and Flanders, and, in the ninth century, was carried to the north. Although the Italians used painted glass for mosaic work, yet they appear not to have applied it to church windows before the eight century. We find undoubted traces of it in Bavaria towards the end of the tenth century. There was a glass-house at Tegern-see, near Munich. In the eleventh century, the imitation of the best pieces of mosaic work in paintings upon glass was commenced. This art derived great advantages, at the end of the fourteenth century, from the important invention of enamel painting, or the art of fixing the metallic colours in glass. The art flourished most during the fifteenth and sixteenth centuries. France, England, and the Netherlands boasted first-rate artists in this department, as Henriet, Monier of Blois, and Ab. von Diepenbecke. In Germany, Durer gained celebrity in the same art. It declined in the seventeenth century, and, yielding to the force of fashion, it ceased to be heard of in the eighteenth. It was then chiefly carried on in England, by foreign artists. In the reign of James I., a school was founded by a Netherlander, Bernh. de Linge, who may be regarded as the father of modern painting upon glass. The school has continued to this day. There were some artists in the seventeenth and eighteenth centuries, who gained reputation by their paintings upon glass, as Eginton of Birmingham, Wolfgang Baumgartner of Kufstein, in the Tyrol (who died 1761), and their contemporary Jouffroy, who painted, in a chapel in London, the resurrection of the Saviour. The knowledge acquired by experience was not lost, but the practice of the art was very limited. This may be inferred from some treatises which are extant, as Viel's Art of Painting upon Glass. In Germany, painting upon glass was revived in the nineteenth century. M. S. Frank, of Nuremburg, first attempted to restore it to its proper rank. He has been employed as a painter on glass at the royal porcelain manufactory at Munich. The royal cabinet of medals possesses a Birth of Christ by him, and the chapel a Supper, which was made in imitation of Durer's small Passion. (See Speth's paper in the *Kunstblatt*, or Journal of Arts, 1820, No. 27.) The works in painted glass produced at Berlin and Vienna, are not comparable with him. In the castle of Marienburg, in Prussia, recently rebuilt, are some paintings upon glass, which may even be compared to the ancient specimens.

Glass is a common term to designate a telescope.

Night-glass is a telescope made for viewing objects at night.

Half-hour glass, frequently called *watch glass*, is used at sea to measure the time which each watch has to stay upon deck. To *flog* or *sweat* the glass, is to turn it before the sand has quite run out, and thereby gaining a few minutes each half hour, to make the watch too short. *Glass* is used in the plural to denote the duration of a naval action; as, "They fought yard-arm and yard-arm *three glasses*," that is, an hour and a half.

GLATZ; a county and circle in the Prussian government of Breslau, surrounded by high mountains. The soil is fertile, and the air salubrious, and there are several mineral springs at Cudowa, Neurode, and Reinerts; 360 square miles, with 61,400 inhabitants. The *Seefelder* (lake fields), which are always under water, which never freeses, and never increases nor diminishes, are 2000 feet high. The capital of the county is

Glatz, an important fortress, which was besieged in 1742, 1759, and 1807. To the former county of Glatz belonged also the circle of Habelschwerdt, 297 square miles, with 39,000 inhabitants, in which are Landeck, containing warm baths, and Niederlangenau, containing acidulous springs. Pop. above 8000.

GLAUBER, John Rodolph, a physician of Amsterdam, who died in 1668, at a very advanced age. He has rendered important services in chemistry, notwithstanding his dreams of the transmutation of metals. Chemistry is indebted to him for an improved construction of furnaces, for facilitating many chemical processes, for the mode of preparing the fuming nitric acid by means of sulphuric acid, and for the salt (the sulphate of soda), which has been named from him, and which he discovered accidentally in common salt, as he was obtaining from it the fuming muriatic acid, by distillation with sulphuric acid. Astonished at finding a crystallised salt among the residuum, possessing medicinal properties, he named it *sal mirabile* (the wonderful salt). It is used as a purgative; is here and there found in a natural state, but is chiefly prepared by art, and is a neutral salt, containing water 56 parts, sulphuric acid 24·64, and soda 19·36. Its crystals are large, six-sided prisms, and it has a bitter, cooling taste. In a dry air, it falls into a white powder, and loses 56 parts in the 100 of its weight, but still retains its purgative properties, which are even increased in the part which remains. Nearly all the Glauber's salt consumed in America is prepared from the sea water, and principally at the large salt-works of Massachusetts. This salt is obtained only in the winter, and seems not to exist in solution in the sea-water, but to be formed by the mutual decomposition of the solutions of sulphate of magnesia and chloride of sodium at a freesing temperature. In fact, during the extreme cold weather, a crystalline deposit, consisting chiefly of sulphate of soda, is formed in the pickle vats, whilst, at temperatures above freesing, no other salts are obtained from the same menstruum, except muriate of soda, sulphate of magnesia, hydrochlorates of magnesia and lime, &c.; but no sulphate of soda. That crystalline deposit is taken out with iron rakes, having strainers attached to them, and is purified, for sale, by crystallisation; the best formed crystals are sometimes dried and sold in their impure state.

GLAUCUS; a fisherman of Anthedon in Boeotia, who was received among the national deities of Greece, not long before the time of Æschylus, and to whom, as a god of the sea, the power of prophecy was attributed. Apollonius makes him render oracles to the Argonauts, on the coast of Mysia. (See Ovid, *Metamorph.*, xiii. 906.)

GLAZING. To prevent the penetration of fluids, it is necessary that earthen vessels should be glazed, or covered with a vitreous coating. The materials of common glass would afford the most perfect glazing to crockery ware, were it not that the ratio of its expansion and contraction is not the same with that of the clay; so that a glazing of this sort is liable to cracks and fissures, when exposed to changes of temperature. A mixture of equal parts of oxide of lead and ground flints is found to be a durable glaze for the common cream-coloured ware, and is generally used for that purpose. These materials are first ground to an extremely fine powder, and mixed with water to form a thin liquid. The ware is dipped into this fluid and drawn out. The moisture is soon absorbed by the clay, leaving the glazing particles upon the surface. These are afterwards melted by the heat of the kiln, and constitute a uniform and durable vitreous coating. The English and French manufacturers find it necessary to harden their vessels by heat, or bring them to the state of biscuit, before they are glazed; but the composition used by the Chinese resists water, after it has been once dried in the air, so as to bear dipping in the glazing liquid without injury. This gives them a great advantage in the economy of fuel.

Painters call *glazing* the laying a transparent colour over one of a different tint.

GLEDITSCH, John Theophilus, professor of natural history and botany, and member of the academy of sciences at Berlin, was born at Leipsic, February 5, 1714. He died at Berlin, October, 1786, where, after having lived and laboured in many other places, he was superintendent of the botanic garden. He was a very scientific botanist, and was the first to produce a scientific arrangement of forest trees. Several very esteemed works were first published after his death, by his son-in-law Gerhard, at Berlin. Among the best are his *Catalogus Plantarum* (of the Ziethen garden at Trebnits), his *Consideratio Epicriseos Siegesbekianæ in Linnæi Systema Plantarum, etc. Lucubratiuncula de Fuco subgloboso sessili et molli in Murchia reperiundo*, a German translation of which may be found in his dissertations upon botany, in 3 vols.; his Systematic Introduction to the Knowledge of Forests (*Systematische Einleitung zum Studium der Forstwissenschaft*); his Practico-Theoretical History of Medical Plants (*Theoretisch-praktische Geschichte der Medicinalpflanzen*): his Natural History of the most useful Domestic Plants (*Naturgeschichte der nützlichsten einheimischen Gewächse*); his *Botanica Medica* (published by F. W. A. Luders, one of the most distinguished pupils); and his Remarks in Relation to Botany and Medicine (*Bemerkungen in Bezug auf Botanik und Medicin*). His dissertations are to be found partly in the Memoirs of the Friends of Natural History, at Berlin, in the Annals of the Berlin Academy, and in the Varieties (*Mannigfaltigkeiten*) of Martini, as well as many valuable botanic catalogues. He also published the second edition of the *Philosophia Botanica* of Linnæus. The English naturalist Catesby has, in honour of him, given the name *Gleditsia* to an exotic plant.

GLEE, in music; a vocal composition in three or more parts, generally consisting of more than one movement, the subject of which may be either gay, tender or grave, bacchanalian, amatory or pathetic.

GLEICHEN, Ernest, according to some, Louis, count, sprang from a celebrated German family now extinct, went on a crusade to Palestine, fought against and was taken prisoner by the Turks. The following story is related of him, for the truth of which we will not vouch. One day, as the unfortunate man was at work on the road, the sultan's daughter saw him, and, moved by pity and love, offered him his

freedom, if he would fly with her and make her his wife. In vain did he plead to her, that he had a wife and children at home. The princess, used only to the customs of her own country, saw no obstacle in that. They escaped, and arrived by sea at Venice. The count here learned that his wife and children were yet living, and anxiously awaiting his return. He hastened to Rome, and, after his sultana was baptised, he obtained permission from the pope to keep both his wives, with whom he lived thenceforth in happiness; and his first wife had the generosity to divide her husband's love with her, without whose help she would never again have seen his face. The count's monument, upon which he was represented with both his wives, was formerly to be seen in the Benedictine church upon the Petersberg at Erfurt, and is now at Gotha.

GLEIM, John William Louis, born at Ermsleben, a small town in the principality of Halberstadt, April 2, 1719, died February 18, 1803, at Halberstadt, where he was secretary to the cathedral chapter, and at the same time canon of the chapter of Waldeck. He lost his father when young, his poem on the death of whom shows the early developement of his poetical talent. In 1738, he went to the university of Halle, after having been maintained up to that time by charitable persons. Us was one of his fellow students and friends; both took the Roman and Greek poets as their models. In 1740, Gleim left the university, and, after some time, became secretary to prince William, son of the margrave of Brandenburg-Schwedt. At this period, he made the acquaintance of Kleist, another German poet, and became his intimate friend; the two poets are mentioned in German literature like two brothers. With Sulzer, Ramler, Graun, &c., they joined the party of Bosmer against that of Gottsched. The second Silesian war, in 1744, separated the two friends; and Gleim, after many vicissitudes of fortune, was appointed secretary of the cathedral chapter of Halberstadt, in 1747. Gleim's element was friendship. He corresponded with all the principal wits in Germany, and enjoyed the affection of all. His correspondence is, therefore, very interesting. Gleim was never married. His niece, Sophia Dorothea Gleim, whom he has frequently sung, under the name of Gleminde, kept his house. He acquired the greatest reputation by his martial songs, which appeared under the name and in the character of an old grenadier, at the time when Frederic the Great filled all Europe with the fame of his achievements. Two years before his death, he became blind. Klopstock wrote an ode to his memory. He was buried in his garden, in Halberstadt, and, according to his last will, some simple urns, with the names of his friends who died before him, are arranged around his own. His works have been published; Gleim's *Sämmtliche Werke, erste Originalausgabe aus des Dichters Handschriften durch W. Körte*; 7 small vols. (Halberstadt, 1811—13). Korte has also written his life.

GLENDOWER, Owen, who has been sometimes called the *Wallace of Wales*. The precise date of his birth, is uncertain, some fixing it in 1349, others in 1354. The place of his nativity was Trefgarn, in Pembrokeshire, where he was born of Ellen, a lineal descendent from Catharine, daughter and heiress to Llewellyn, last prince of Wales. At at early age, he was sent to London for education, and, entering himself at one of the inns of court, studied for the English bar, but relinquished the profession on being appointed *scutiger* to Richard II. Jolo Goch, a contemporary bard, gives a splendid description of his family mansion, or rather palace; and, indeed, he appears at this time to have exercised considerable feudal influence, carrying on, with great spirit, a contest of some duration with Reginald, lord Grey de Ruthyn, respecting an estate called Croesau, in which he was, for a time, successful; but, on the deposition of his royal patron, by Henry of Bolingbroke, his old antagonist took advantage of the unsettled state of the country to renew his usurpation. Nor did his evil practices end here; for Grey, being charged with the delivery of a summons to Owen, from the new king, to attend him on his Scottish expedition, purposely neglected to deliver it. Glendower was, in consequence, outlawed for disaffection; his enemy seised upon all his lands, and the parliament treated his remonstrances with neglect. Glendower forcibly dispossessed Grey of his lands, and, having succeeded in raising a considerable force, caused himself to be proclaimed prince of Wales, September 20, 1400. To this measure he is said to have been incited by some traditionary prophecies of Merlin; and certain it is, that many of his countrymen of consideration were induced, by the same motives, to join his standard. He defeated the king's troops under Sir Edward Mortimer, and Henry put in motion against him three grand divisions of his army; but Owen, retiring to the mountains, foiled all attempts to bring him to action; and, the rebellion of the Percys breaking out, he joined the coalition, causing himself, at the same time, to be formally crowned, at Machynlaeth, in Montgomeryshire, "sovereign of Wales." The rashness of Henry Percy brought on the fatal battle of Shrewsbury, before all his Welsh auxiliaries had come up. Their prince, however, is said to have been so near as to have reconnoitred the action from the top of a lofty tree; but, seeing all was lost, directly retreated, and continued his marauding warfare. This he kept up with various success, occasionally assisted by Charles VI. of France, with whom a treaty of his is yet extant, dated 1404, in which he is styled "Owenus, Dei Gratia, Princeps Walliæ." Finding it impossible to subdue him, Henry, in 1415, condescended to treat with him; but Owen died during the negotiation, which was, however, continued and ratified by his son, Meredyd ap Owen, February 24, 1416.

GLOBE, in geometry; a round, solid body, which may be conceived to be generated by the revolution of a semicircle about its diameter. (See *Sphere.*) *Globe*, or *Artificial Globe*, in geography and astronomy, is more particularly used to denote a globe of metal, plaster, paper, pasteboard, &c., on the surface of which is drawn a map, or representation of either the heavens or the earth, with the several circles which are conceived upon them; the former being called the *terrestrial globe*, and the latter the *celestial globe*. The *Celestial Globe* is an inverted representation of the heavens, on which the stars are marked according to their several situations. The diurnal motion of this globe is from east to west, to represent the apparent diurnal motion of the sun and stars. The eye is supposed to be placed in the centre of this globe, but, in fact, it is beyond the stars. The *Terrestrial Globe* is an artificial representation of the earth, exhibiting its great divisions. The diurnal motion of this globe is from west to east.

The axis of the earth is an imaginary line passing through its centre; and the wire on which the artificial globe turns, represents this line. The poles of the earth are the extremities of this axis; that on the north is called the *arctic*, that on the south, the *antarctic* pole. The celestial poles are imaginary points in the heavens, exactly above the terrestrial poles. The brasen meridian is the circle in which the artificial globe turns, divided into 360 degrees. Every circle is supposed to be divided into 360 equal parts, called *degrees*, each degree into sixty equal parts, called *minutes*, each minute into sixty equal parts,

alled *seconds*, &c.; a degree is therefore only a relative idea, and not an absolute quantity, except when applied to a great circle of the earth, as to the quator or to a meridian, in which cases it is sixty eographical miles, or sixty-nine and a half English iles. A degree of a great circle in the heavens is space nearly equal to twice the apparent diameter f the sun; or to twice that of the moon, when conderably elevated above the horison. Degrees are arked with a small cipher, minutes with one dash, econds with two, thirds with three, &c.; thus, 5° 14′ 22″ 35‴ are twenty-five degrees, fourteen inutes, twenty-two seconds, thirty-five thirds. In he upper semicircle of the brass meridian, these degrees are numbered ten, twenty, &c., to ninety, from he equator towards the poles, and are used for finding the latitudes of places. On the lower semicircle of the brass meridian, they are numbered ten, twenty, &c., to ninety, from the poles towards the equator, and are used in the elevation of the poles. (See *Degree*.) Great circles, as the equator, ecliptic, and the colures, divide the globe into two equal parts. Small circles, as the tropics, polar circles, parallels of latitude, &c., divide the globe into two unequal parts. Meridians, or lines of longitude, are semicircles, extending from the north to the south pole, and cutting the equator at right angles. Every place upon the globe is supposed to have a meridian passing through it, though there be only twenty-four drawn upon the terrestrial globe; the deficiency is supplied by the brass meridian. When the sun comes to the meridian of any place (not within the polar circles), it is noon or mid-day at that place. The first meridian is that from which geographers begin to reckon the longitudes of places. In English maps and globes, the first meridian is a semicircle, supposed to pass through London, or the royal observatory at Greenwich. The equator (q. v.), a great circle of the earth, equidistant from the poles, divides the globe into two hemispheres, northern and southern. The latitudes of places are reckoned from the equator northward and southward, and the longitudes are reckoned upon it eastward and westward. The equator, when referred to the heavens, is called the *equinoctial*, because, when the sun appears in it, the days and nights are equal all over the world, viz., twelve hours each. The declination of the sun, stars, and planets, is counted from the equinoctial northward and southward; and their right ascensions are reckoned upon it eastward round the celestial globe, from 0 to 360 degrees. The ecliptic (q. v.) is a great circle in which the sun makes his apparent annual progress among the fixed stars. It is the real path of the earth round the sun. The points at which the ecliptic intersects the equator, at an angle of 23° 28′, are called the *equinoctial points*: the ecliptic is situated in the middle of the sodiac. The apparent path of the sun is either in the equinoctial, or in lines nearly parallel to it, and his apparent annual path may be traced in the heavens, by observing what particular constellation in the sodiac is on the meridian at midnight; the opposite constellation will show, very nearly, the sun's place at noon on the same day. The sodiac (q. v.), on the celestial globe, is a space which extends about 8° on either side of the ecliptic. Within this belt the motions of the planets are performed.

Signs of the Zodiac. The ecliptic and sodiac are divided into twelve equal parts, called *signs*, each containing 30°; and the sun makes his apparent annual progress through the ecliptic, at the rate of nearly a degree in a day. The names of the signs, and the days on which the sun enters them, are given in the article *Ecliptic*. The colures, two great circles passing, one through the points Aries and Libra and the poles of the world, the other through Cancer and Capricorn and the poles of the world, have their uses in mechanical geography. That passing through Aries and Libra is called the *equinoctial* colure; that passing through Cancer and Capricorn, the *solstitial* colure. The tropics are two smaller circles, each 23° 28′ from the equator, with which they are parallel; the northern is called the *tropic of Cancer*, the southern the *tropic of Capricorn*. The tropics are the limits of the torrid zone, northward and southward; and within these boundaries alone is the sun ever seen vertical. The polar circles are two small circles, parallel to the equator (or equinoctial), at the distance of 66° 32′ from it, and 23° 28′ from the poles. The northern is called the *arctic*, the southern the *antarctic* circle. Parallels of latitude are small circles drawn through every ten degrees of latitude, on the terrestrial globe, parallel to the equator. Every place on the globe is supposed to have a parallel of latitude drawn through it, though there are generally only sixteen parallels of latitude drawn on the terrestrial globe. The hour circle, of the artificial globe, is a small circle of brass, with an index or pointer fixed to the north pole. The hour circle is divided into twenty-four equal parts, corresponding to the hours of the day; and these are again subdivided into halves and quarters. The horison (q. v.) is a great circle, which separates the visible half of the heavens from the invisible; the earth being considered as a point in the centre of the sphere of the fixed stars. Horison, when applied to the earth, is either sensible or rational. The sensible or visible horison is the circle which bounds our view, where the sky appears to touch the earth or sea. The sensible horison extends only a few miles; for example, if a man of six feet high were to stand on a large plane, or on the surface of the sea, the utmost extent of his view, upon the earth or the sea, would be only a very few miles. The rational or true horison, is an imaginary plane, passing through the centre of the earth, parallel to the sensible horison. It determines the rising and setting of the sun, stars, and planets. The wooden horison, circumscribing the artificial globe, represents the rational horison on the earth. This horison is divided into several concentric circles, arranged in the following order: One contains the thirty-two points of the compass, divided into half and quarter points. The degrees in each point are to be found in the amplitude circle. Another contains the twelve signs of the sodiac, with the figure and character of each sign; and another contains the days of the month, answering to each degree of the sun's place in the ecliptic, and the twelve calendar months. The cardinal points of the horison are east, west, north and south. The cardinal points in the heavens are the zenith, the nadir, and the points where the sun rises and sets. The cardinal points of the ecliptic are the equinoctial and solstitial points, which mark out the four seasons of the year; and the cardinal signs are, ♈ Aries, ♋ Cancer, ♎ Libra, and ♑ Capricorn. The zenith is a point in the heavens exactly over head, and is the elevated pole of our horison. The nadir is a point in the heavens exactly under our feet, being the depressed pole of our horison, and the zenith, or elevated pole, of the horison of our antipodes. The pole of any circle is a point on the surface of the globe, 90° distant from every part of the circle. Thus the poles of the world are 90° from every part of the equator; the poles of the ecliptic (on the celestial globe) are 90° from every part of the ecliptic, and 23° 28′ from the poles of the equinoctial; consequently they are situated in the arctic and antarctic circles. Every circle on the globe, whether real or imaginary, has two poles dia-

metrically opposite to each other. The equinoctial points are Aries and Libra, where the ecliptic cuts the equinoctial. The point Aries is called the *vernal equinox*, and the point Libra the *autumnal equinox*. When the sun is in either of these points, the days and nights on every part of the globe are equal to each other. The solstitial points are Cancer, and Capricorn. When the sun enters Cancer, it is the longest day to all the inhabitants on the north side of the equator, and the shortest day to those on the south side. When the sun enters Capricorn, it is the shortest day to those who live in north latitude, and the longest day to those who live in south latitude. A hemisphere is half the surface of the globe; for every great circle divides the globe into two hemispheres. The horizon divides the upper from the lower hemisphere in the heavens; the equator separates the northern from the southern on the earth; and the brass meridian, standing over any place on the terrestrial globe, divides the eastern from the western hemisphere. The latitude of a place, on the terrestrial globe, is its distance from the equator in degrees, minutes, or geographical miles, &c., and is reckoned on the brass meridian, from the equator towards the north or south pole. (See *Latitude.*) The quadrant of altitude is a thin piece of brass, divided upwards, from 0 to 90°, downward, from 0 to 18°; when used it is generally screwed to the brass meridian. The upper divisions determine the distances of places on the earth, the distances of the celestial bodies, their latitudes, &c.; and the lower divisions are applied to finding the beginning, the end, and duration of twilight. The longitude of a place, on the terrestrial globe, is the distance of the meridian of that place from the first meridian, reckoned in degrees and parts of a degree, on the equator. Longitude is either eastward or westward, according as a place is to the east or west of the first meridian. No place can have more than 180°, or half the circumference of the globe. (See *Longitude.)* Hour circles are the same as meridians. They are drawn through every 15° of the equator, each answering to an hour. The brass meridian and these circles always correspond. (For an account of climate, see *Climate.)* For an account of the zones, see *Zone.)* The crepusculum, or twilight, is that faint light which we perceive before the sun rises and after he sets. It is produced by the rays of light being refracted in their passage through the earth's atmosphere, and reflected from the different particles thereof. The twilight is supposed to end in the evening, when the sun is 18° below the horizon. The angle of position between two places on the terrestial globe, is an angle at the zenith of one of the places, formed by the meridian of that place, and a vertical circle passing through the other place measured on the horizon, from the elevated pole towards the vertical circle. Rhumbs, are the divisions of the horizon into thirty-two parts, called the *points of the compass.*

Problem 1.—*To find the latitude of any place.*—Rule. Turn the globe till the place comes to the graduated edge of the brasen meridian, and the degree on the meridian with which the place corresponds is the latitude north or south, as it may be north or south of the equator.

Problem 2.—*To find the longitude of any place.*—Rule. Turn the globe till the place comes to the brasen meridian, and the degree on the equator, intersected by the brasen meridian, shows the longitude.

Problem 3.—*To find any place on the globe, having the latitude and longitude of that place given.*—Rule. Find the longitude of the given place on the equator, bring it to that part of the brass meridian which is numbered from the equator towards the poles; and then, under the given latitude, on the brass meridian, you will find the place required.

Problem 4.—*To find the difference of latitude of any two places.*—Rule. If the places are in the same hemisphere, bring each to the meridian, and subtract the latitude of the one from that of the other; if in different hemispheres, add the latitude of the one to that of the other, and the sum will show the difference of latitude.

Problem 5.—*To find the difference of longitude between any two places.*—Rule. Bring one of the places to the brasen meridian; mark its longitude; then bring the other place to the meridian, and the number of degrees between its longitude and that of the first mark is the difference of longitude. When this sum exceeds 180°, take it from 360°, and the remainder will be the difference of longitude.

Problem 6.—*To find the distance between two places.*—Rule. When the distance is less than 90°, lay the quadrant of altitude over both the places, so that the division marked O may be on one of the places; then the degree cut by the other place will show the distance in degrees. Multiply these degrees by 69½, and the product will be the distance in English miles. The distance between two places, with the angle of position, may be found, at the same time in the following manner: Elevate the globe for one of the places, bring it to the meridian, screw the quadrant of altitude over it; then move the quadrant till it come over the other place, and observe what degree of it this last place cuts. Subtract this distance from 90°, and the remainder will be the distance in degrees. The quadrant of altitude, on the horizon, will now show the angle of position. When the distance is greater than 90°, find the antipodes of one of the places, and measure the distance between this and the other place with the quadrant of altitude. Subtract this distance from 180, and the remainder will be the whole distance required. *When the angle of position is required,* this case may be performed thus: 1. Elevate the globe for the antipodes of one of the places, and, having fixed the quadrant over it, bring its edge over the other place, and add the degree cut by it to 90°, and the sum will be the distance required. 2. The quadrant will show the position; only, W. must be read for E.; E. for W.; N. for S.; and S. for N.

Problem 7.—*The hour being given at any place, to find what hour it is in any other part of the world.*—Rule. Bring the place, at which the time is given, to the meridian, set the index to the given hour, then turn the globe till the other place comes to the meridian, and the index will show the time required.

Obs. The earth turns round on its axis from the W. towards the E., and causes a different part of its surface to be successively presented to the sun. When the meridian of any place is directly opposite to the sun, it is then noon to all places on that meridian. Meridians towards the E. come opposite to the sun sooner than those towards the W.; and hence the people there have noon much sooner, and all the other hours of the day will be proportionably advanced. The earth takes twenty-four hours to turn on its axis, and the rate at which it turns every hour may be found, by dividing 360° by 24; the quotient, 15, is the number of degrees the earth turns in an hour. Hence it is that a place lying 15° to the east of another, will have noon one hour sooner; if it is 30° or 45°, it will have noon two or three hours sooner than the other; and so on, in the same proportion, for all places farther removed. Places that lie 15°, 30°, or 45°, to the W. of that place at which it is noon, will have noon one, two, or three hours later; and so on, in the same proportion.

Problem 8.—*To adjust the globe for the latitude*

zenith, and sun's place.—Rule. For the *latitude:* elevate the pole above the horizon according to the latitude of the place, and the globe will be adjusted for the latitude. For the *zenith:* screw the quadrant of altitude on the meridian, at the given degree of latitude, counting from the equator towards the elevated pole, and the globe will be rectified for the zenith. For the *sun's place:** find the sun's place in the horizon, and then bring the place which corresponds thereto, found on the ecliptic, to the meridian; and set the hour index to twelve at noon; then will the globe be adjusted for the sun's place.

Problem 9.—*To find the sun's declination.*—Rule. Bring the sun's place for the given day to the brass meridian, and the degree over it will be the declination sought; or bring the day of the month marked in the *analemma*, to the brass meridian, and the degree over it will be the declination, as before. 1. The declination of the sun being its distance north or south from the equator, this Problem is exactly the same as that for finding the latitude of a place. 2. The greatest north declination, 23° 28′, is when the sun enters Cancer, June 21st. The greatest south declination, 23° 28′, is when it enters Capricorn, December 21st.

Problem 10.—*To find the sun's rising and setting for a given day, at a given place.*—Rule. Elevate the globe for the sun's declination; bring the given place to the meridian; set the index to twelve, and turn the globe till the given place comes to the eastern edge of the horizon; then the index will show the time of the sun's rising. Next bring the given place to the western edge of the horizon, and the index will show the hour at which the sun sets. If the hour circle have a double row of figures, make use of that which increases towards the E.; the sun's rising and setting may then be found at once, by bringing the place only to the eastern edge of the horizon; for the index will point on one row to the hour of rising, and on the other (that which increases towards the W.) to the hour of setting. *By this problem may be found the length of the day and night.* Double the time of the sun's setting, and it will give the length of the day. Double the time of the sun's rising, and it will give the length of the night.

Problem 11.—*To find all those places in the torrid zone to which the sun is vertical on a given day.*—Rule. Find the sun's place for the given day, bring it to the meridian, mark the declination, and turn the globe round, when all those places which pass under that mark of the meridian, will have the sun vertical on the given day. By the analemma, bring the day of the month, marked upon the analemma, to the brazen meridian, and mark the declination; then the places will be found as above.

Problem 12.—*The day, hour and place being given, to find at what places of the earth the sun is then rising and setting; where it is noon and midnight.*—Rule. Find the place to which the sun is vertical at the given hour, bring the same to the meridian, and adjust the globe to a latitude equal to the sun's declination. Then, to all places under the western side of the horizon, the sun is rising; to those above the eastern horizon, the sun is setting; to all those under the upper half of the brazen meridian, it is noon; and to all those under the lower half, it is midnight.

Problem 13.—*To show, by the globe, the cause of day and night.*—The sun shines upon the earth, and illuminates that half only which is turned towards him: the other half is in darkness. But, as the earth turns round on its axis, from W. to E., once in twenty-four hours, every meridian upon the earth, will, in that time, successively be presented to the sun, and be deprived of its light again. Rule. Elevate the globe for the sun's declination, so that the sun may be in the zenith, and the horizon will be the terminator, or boundary circle, of light and darkness: that half of the earth above the horizon enjoys light; that half below the horizon will be in darkness. Put a patch upon the globe, to represent any place, turn the globe round from W. to E., and when the place comes to the western side of the horizon, the sun appears to the inhabitants of that place to be rising in the E.; but it is more properly the inhabitants of that place rising in the W. Go on to turn the globe round, and the place will ascend higher towards the meridian in a contrary direction. When the place has arrived at the meridian, it will then be noon there, and the sun will be at his greatest altitude for that day. Continue to turn the globe, and the place will gradually recede from the meridian, and decline towards the eastern horizon, which will cause the appearance of the sun descending towards the W. When the place has arrived at the eastern horizon, as it is then going below the boundary of light and darkness, the sun will appear to be setting in the W. The place, being now at a greater distance than 90° from that point where the sun is vertical, is deprived of his light, and continues in darkness till, by the revolution of the earth, it arrives again at the western horizon, when the sun will appear to rise as before. The sun is obviously rising, at the same time, to all places on the western side of the horizon, and setting, at the same time, to all places on the eastern side of the horizon.

Problem 14.—*To show, by the globe, the cause of the variety of the seasons.*—When the sun is in the equator, the horizon will represent the terminator, or boundary circle of light and darkness; and, the poles being made to coincide with it, we shall have a fair representation of the two seasons, spring and autumn; for, its rays then extending 90° every way from the vertical point, both poles will be illuminated. When the sun is in the tropic of Cancer, being 23½° farther to the N. than before, his rays will extend 23½° beyond the north pole, on the opposite meridian: they will not, however, reach the south pole by 23½°; they will extend to the antarctic only, being 90° distant from the tropic of Cancer: hence, to make the horizon the terminator in this case, the north pole must be elevated 23½° above the horizon, and we shall have the summer season to Europeans. When the sun is in the tropic of Capricorn, the reverse of this takes place; for the sun's rays then extend 23½° beyond the south pole, on the opposite meridian, and only as far north as the arctic circle: hence, to make the horizon the terminator in this case, the south pole must be elevated 23½° above the horizon, and we shall have the winter season to Europeans.

The problems thus given are only to be considered as specimens of what may be performed. On the terrestrial globe, Butler describes fifty-seven; while, on the celestial sphere, the number and variety are still much greater. It is said that Anaximander of Miletus, a pupil of Thales, who flourished about the fiftieth Olympiad (580 B. C.), invented the terrestrial globe. That Ptolemy had an artificial globe, with the universal meridian, appears from his Almagest. The ancients likewise made celestial globes. Among the moderns, several have distinguished themselves in the construction of globes. The Venetian Coronelli, (who died 1718) prepared, in 1683, with the assistance of Claudius Molinet, and other Parisian artists, a terrestrial globe, for Louis XIV. twelve Parisian feet in diameter. The same artist made a celestial globe of the same size. Funk, in Leipsic, published, in 1780, models in the form of cones (*coniglobia*), as substitutes for celestial globes.

* Find the day of the month on the horizon, and against it in the adjoining circle, will be found the sign and degree in which the sun is for that day.

These cones may be made almost as serviceable as globes, and are incomparably cheaper. Some of the best modern globes are those made since 1790, at Nuremberg, after the direction of the famous observer Bode. Adam and Cary's globes, of London, are very good. Globes have been lately made in England, for the use of learners, with nothing but the meridians and parallels of latitude drawn indelibly on them. They are covered with a substance on which drawings can be made with a slate pencil, and easily effaced. White globes are also prepared, on which the pupil can draw with a black lead pencil, and rub out the work at pleasure. Either sort must be highly useful in schools where geography is carefully studied. Among the most remarkable globes in existence, that of Gottorp, in the academy of sciences of Petersburg, is worthy of notice. This is a large concave sphere, eleven feet in diameter, containing a table and seats for twelve persons, to whom the inside surface represents the visible phenomena of the heavens. The stars are distinguised by gilded nails, according to their respective magnitudes, and arranged in groupes, as the different constellations require. The outside is a terrestrial globe, representing the land and water on the surface of the earth. It is called the *globe of Gottorp*, from being substituted for one originally made in that place, which, with inconceivable labour, was conducted upon rollers and sledges, over snow, and through forests to Riga, and thence by sea to Petersburg. In 1751, it was consumed by fire, and from its iron plates and materials, the present globe was made. But, large as these globes are, they become diminutive when compared with the sphere constructed by the late doctor Long. This is eighteen feet in diameter; and it will enable thirty persons to sit within its concavity, without any inconvenience. The entrance is over the south pole, by six steps. This wonderful machine stands in Pembroke hall, in the university of Cambridge. All the constellations and stars of the northern hemisphere, visible at Cambridge, are painted upon plates of iron, which, joined together, form one concave surface. Unhappily, it is now very much damaged.

The Celestial Globe. The general definitions given of the terrestrial globe, apply also to the celestial, the various circles of which are more aptly illustrated by the armillary sphere,* which is well adapted to give youth just notions of those imaginary circles, which astronomers have applied to what is vulgarly called the *concave sphere of the heavens*; but by means of these circles, we investigate, with the nicest accuracy, the motions of the celestial bodies. There are six great circles of the sphere, which require particular attention, but which the reader is now acquainted with: they are, the horison, the meridian, the equator, the ecliptic, the equinoctial colure, and the solstitial colure. The sphere is contained in a frame, on the top of which is a broad circle, representing the meridian. It is suspended on two pins, at opposite points of the meridian. These pins are a continuation of the axis of the sphere both ways, and as the sphere turns round upon them, they are considered as poles, north and south. The equator goes round the sphere, exactly in the middle, between the two poles. The ecliptic, the colures, the tropics, the polar circles, have been already defined, and are easily discovered. The horizon is graduated, according to the division of the circle, into quadrants and degrees; and, to refer celestial objects to the horison, we have also the points of the compass laid down. Hence the amplitude, or distance, of heav enly bodies, from the E. and W. points, and their asimuth, or distance from the meridian, are reckoned on the horison of the armillary sphere. The graduation of the equator enables us to fix the right ascension of celestial, and the longitude of terrestrial objects. The graduation of the ecliptic serves to indicate, in the armillary sphere, the latitude and longitude of celestial bodies. The colures are, in a manner, the limits of the year, pointing out the seasons by their two opposite points of the ecliptic. The hour circle tells us in what time any motion of the earth, in the centre, is performed. In fine, many details of the science may be pleasingly and popularly illustrated by this contrivance.

The appearances of the stars in the heavens illustrated by the armillary sphere.—By placing small patches of paper on the different circles to represent stars, we perceive, that those which are farthest from the poles will describe the greatest circles; and that the greatest circles are described by those stars situated in the celestial equator. A star has acquired its greatest elevation when it comes to the upper semicircle of the meridian, and its greatest depression when it is at the lower circle of the meridian: the meridian bisects its arc of apparition. Some circles of revolution are wholly above, others entirely below the horison; therefore the patches on those circles show us which stars descend below, or which never ascend above the horison. And any object, whose circle of revolution is on the same side of the equator with the elevated pole, is longer visible than it is invisible; the contrary holds true if it be on the other side of the equator. The following definitions are more immediately applicable to the celestial globe: The declination of the sun, of a star, or planet, is its distance from the equinoctial, northward or southward. When the sun is in the equinoctial, he has no declination, and enlightens half the globe, from pole to pole. As he increases in north declination, he gradually shines farther over the north pole, and leaves the south pole in darkness; in a similar manner, when he has south declination, he shines over the south pole, and leaves the north pole in darkness. The greatest declination the sun can have, is 23° 28′; the greatest declination a star can have, is 90°, and that of a planet, 30° 28′ north or south. The latitude of a star or planet, is its distance from the ecliptic, north or south, reckoned towards the pole of the ecliptic, on the quadrant of altitude. Some stars, situate in and about the pole, have 90° of latitude; the planets have only 8°; and the sun, being always in the ecliptic, has no latitude. The longitude of a star, or planet, is reckoned by the degrees of the ecliptic, from the point Aries round the globe. On the celestial globe, the longitude of the sun corresponds with the sun's place on the terrestrial globe. The right ascension of the sun or a star, is that degree of the equinoctial which rises with the sun, or a star, in a right sphere, and is reckoned from the equinoctial point Aries eastward round the globe. Oblique ascension of the sun, or a star, is that degree of the equinoctial which rises with the sun, or a star, in an oblique sphere, and is likewise counted from the point Aries eastward round the globe. Oblique descension of the sun, or a star, is that degree of the equinoctial which sets with the sun, or a star, in an oblique sphere. The ascensional or descensional difference is the difference between the right and oblique ascension, or the difference between the right and oblique descension; and, with respect to the sun, it is the time he rises before six in the spring and summer, or sets before six in the autumn and winter. The angle of position of a star, is an angle formed by two great circles intersecting each other in the place of the star, the one

* So called because it consists of a number of rings of brass, which the old Romans named *armillæ*, from their resemblance, perhaps, to bracelets, or rings for the arms.

assing through the pole of the equinoctial, the other rough the pole of the ecliptic. The poetical rising nd setting of the stars, is so called because the ncient poets referred the rising and setting of the ars to the sun. When a star rose with the sun, or t when the sun rose, it was said to rise and set *cosmically*. When a star rose at sunsetting, or set ith the sun, it was said to rise and set *achronically*. hen a star first became visible in the morning, after aving been so near the sun as to be hid by the plendour of his rays, it was said to rise *heliacally*, nd when a star first became invisible in the even-g, on account of its nearness to the sun, it was said o set *heliacally*. A constellation is an assemblage f stars, on the surface of the celestial globe, circum-cribed by the outlines of some assumed figure, as a ull, a bear, a lion, &c. This division of the stars nto constellations, directs us to any part of the hea-ens where a particular star is situated. The sodia-al constellations are twelve in number; the northern onstellations forty-one, and the southern forty-six, aking in the whole ninety-nine. The largest stars re called *stars of the first magnitude*. Those of the ixth magnitude are the smallest that can be seen by he naked eye.

GLOBULAR CHART; a name given to the epresentation of the surface, or of some part of the urface, of the terrestrial globe, upon a plane herein the parallels of latitude are circles, nearly oncentric, the meridian curves bending towards he poles, and the rhumb-lines are also curves. See *Map*.

GLOGAU, or GROSS-GLOGAU, an important Prussian fortress in Silesia, in the government of Liegnitz, not far from the Oder, with 11,200 inhabi-ants, of whom 1230 are Jews, is the seat of a supe-ior court, and has a Lutheran and a Catholic gymnasium. The last duke of Glogau died in 1467, and the principality fell to the crown of Bohemia. Frederic the Great took Glogau in 1741, and strengthened its fortifications. After the battle of Jena, the French occupied it until 1814, when it was delivered up to the Prussians, according to the terms of the armistice concluded with the then count d'Artois. The city has some manufactories, and a brisk inland trade. Lat. N. 51° 38′; lon. E. 16° 6′ 53″. Twenty leagues N.W. of Breslau.

GLORIA IN EXCELSIS, GLORIA PATRI; glory to God in the highest. See *Doxology*.

GLORIOSA SUPERBA; an ornamental plant, native of India, and belonging to the natural order *liliaceæ*. The root is perennial; the stem herbaceous, weak, from six to ten feet high, bearing two opposite lateral branches; the leaves alternate, terminating in tendrils; the flowers remarkably elegant, of a beautiful red and yellow colour, provided with six long, lanceolate undulated petals, which are entirely reflexed. It is a tender stove plant, and great heat is necessary to produce the flowers. During winter, the roots should be kept in a warm place, packed in dry sand, without water.

GLOSS; the explanation of an obscure word, particularly of an antiquated or obsolete word. Hence *glossist*, an interpreter, and *glossary*, a collection of such words. A kind of poems, which originated in Spain and Portugal, and has been imitated in Germany, is called *gloss*. It begins with a theme of two, three, or more verses, which is developed in an equal number of stanzas, each of which ends with one of those verses, in the order in which they originally stand. The two Schlegels call them also *variations*, because they resemble variations in music.

GLOTTIS (from γλῶττα, the tongue); the superior opening of the larynx at the bottom of the tongue.

GLOUCESTER; a city of England, the capital of the county of the same name, on the Severn, about thirty miles above its junction with the Bristol channel. The chief manufactory at Gloucester is that of pins, which is the most extensive in the kingdom; and a bell foundery has also been long established. The city consists chiefly of four spacious streets, meeting each other in the centre. The public buildings are handsome; but the chief object of interest is the cathedral of St Peter, originally the abbey. This building combines in one specimen the architecture of successive ages, the Norman and Saxon, with some of the finest examples of the Gothic or English. Gloucester contains, also, five parish churches, several meeting-houses, and a synagogue; two grammar schools, a charity school, and several hospitals. A mineral spring, surpassing those of Cheltenham in its powers, has been discovered. A handsome pump-room has been erected, with hot, cold, and vapour baths. Gloucester is the see of a bishop. It returns two members to parliament, the number of electors being 2000. It is governed by a mayor, twelve aldermen, &c. Population, 11,933.

GLOVER, Richard, an English poet, was the son of Richard Glover, a merchant of London, where he was born in 1712. Being intended for trade, although he received a classical education at a private school, it was not followed up by an attendance at either university. He early displayed an attachment to the belles-lettres, and, when only sixteen, wrote some verses to the memory of Sir Isaac Newton, which obtained considerable attention. In 1737, he published the epic poem of Leonidas, which was favoured by the party in opposition to Sir Robert Walpole, headed by Frederic prince of Wales. It abounds in noble sentiments, considerably varied by incident and description; but it wants interest, and is not sufficiently imaginative for lasting popularity. The Progress of Commerce followed in 1739; one of the objects of which was to rouse a spirit of national hostility against the Spaniards and the ministry—a purpose which was much more effectually answered by his celebrated ballad of Hosier's Ghost. In 1742, he was chosen by the London merchants to conduct an application to parliament complaining of the neglect of trade; and the speech which he pronounced at the bar of the house was printed, and much applauded. While rising to notice, as a public man, however, he became embarrassed in his private affairs, and made a temporary but honourable retreat, with a view to greater economy. In 1753, his tragedy of Boadicea was performed at Drury-lane theatre, with partial success. His Medea, imitated from Euripides and Seneca, in 1761, obtained greater attention. About this time, being chosen member of parliament for Weymouth, he was esteemed by the mercantile interest as an active and able supporter. He died in November, 1785, at the age of seventy-three. He left behind him another epic poem, forming a sequel to Leonidas, entitled the Athenaid, which was published in 1788, but attracted little attention.

GLOVES, with respect to commerce, are distinguished into wash or tan leather, silk, thread, cotton, worsted, &c. Leathern gloves are made of the skin of the chamois, kid, lamb, doe, elk, &c. The leather of gloves is not tanned, properly speaking, but cured with alum, which renders it soft and pliable, and easy for the hands. The Limerick gloves, likewise called *chicken gloves*, are made of leather, and are remarkably fine. These gloves are manufactured in the city of Ireland from which they derive their name, and whence they have, from time to time, been sent to most parts of Europe, the East Indies, and America. The Limerick gloves are mostly worn by ladies. There is a good imitation made at Wood-

stock, Worcester, and some other parts of England. Large quantities of cotton gloves are manufactured at Nottingham and Leicester; and the greater part of the woollen gloves is made in Wales, Scotland, and the north of England. An immense number of gloves are made in France: they are distinguished for neatness and elegance, as the English for durability. Danish ladies' gloves are very famous.—We have reason to suppose that gloves were used by the Persians, as Xenophon, in the *Cyropædia*, mentions that on one occasion Cyrus went without them. The Greeks and Romans used them, but only for certain kinds of labour, as, for instance, in hedging. They were called *chirothecæ* and *manicæ*. *Manica* properly signifies the sleeve, which was sometimes united with a glove, or, more probably, was worn so long that it could be used as a mitten. During the middle ages, gloves were at first considered as a mark of dignity; archbishops, &c., wore them; knights also wore them in battle. Gloves play a conspicuous part in many national customs and usages, which originated in the age of chivalry. Throwing the glove down before a person, amounted to a challenge to single combat, which was accepted by the person, before whom it was thrown, picking up the glove and throwing down his own to be taken up by the challenger. This ceremony had the force of a mutual engagement to meet at an appointed time and place. The delivery of a glove was also a symbol of investiture. The council of Aix, in the reign of Louis le Débonnaire, prohibited by an edict, the monks wearing any gloves but of sheep skin. But all the powers of the councils, popes, and cardinals, could not accomplish this object, and glove-wearing by the monks and other ecclesiastics, is a subject of frequent complaint by ascetics. The council of Poictiers confined the use of "sandals, rings, and gloves to bishops." At the coronation of the kings of France, the ceremony of blessing the glove was continued till lately, as is that of the champion throwing the glove in the ring at the coronation of the king of England. At the coronation of George II., an unknown gentleman took up the glove, as the champion of the pretender, accepting thereby the challenge of the champion in defence of the right of the house of Hanover to the throne. The judges in England used to be prohibited wearing gloves on the bench; and it was only in case of a maiden assize that the sheriffs were allowed to present a judge with a pair of gloves. It was an old English gambol to win a pair of gloves by kissing a lady, who was caught asleep or sitting on the table in company; and it was an ancient custom in France and Germany, to forfeit the gloves if a person entered the stables of a prince or peer, without previously pulling them off. These gloves were to be redeemed by a fee to the grooms. In Germany, the men that carry the bier at a funeral, receive a pair of gloves and a lemon; the clergyman also receives a pair of gloves at a wedding ceremony.

GLOW-WORM. This is the female of one of the species of *lampyris*. The light is most frequently observable early in the summer, when the animal is in motion. It can be withdrawn or displayed, at pleasure, by contracting or unfolding the body. When crushed in the hand, this luminous substance adheres to it, and continues to shine till it dries. This extraordinary provision of nature is for the purpose of attracting the male. The glow-worm is apterous, or without wings. The male possesses elytra which cover wings longer than the body. The head and antennæ are black, the former concealed by the broad plate of the thorax. The four last rings of the abdomen, which emit the light, are not so bright in the male as in the female, and are nearly destitute of that luminous quality which renders her so remarkable.

GLUCINA, or GLUCINE; the name of a very rare earth, found only in three rare minerals, beryl or emerald, euclase, and chrysoberyl. It is usually procured from the beryl, in which it exists in the proportion of fourteen per cent., combined with silex and alumine. The process for obtaining it pure, is as follows: The mineral is reduced to an exceedingly fine powder, mingled with three times its weight of carbonate of potash, and exposed to a strong heat for half an hour. The fused mass is then dissolved in dilute muriatic acid, and the solution evaporated to perfect dryness, by which means the silex is rendered perfectly insoluble. The alumine and glucine are then redissolved in water acidulated with muriatic acid, and thrown down together by pure ammonia. The precipitate, after being well washed is macerated with a large excess of carbonate of ammonia, by which glucine is dissolved; and on boiling the filtered liquid, carbonate of glucine subsides, which on being heated to redness, affords pure glucine. In this condition, it is white, tasteless, without odour, and quite insoluble in water. Specific gravity, 3. Vegetable colours are not affected by it. It is supposed, by analogy, to be the oxide of a metal, and its supposed metallic base is called *glucinum*. The salts which glucine forms with acids have a sweetish taste; hence its name from γλυκυς, *sweet*.

GLUCK (the chevalier CHRISTOPHER). This musical composer, to whom the opera is indebted for its splendour and dramatic perfection, sprang from a respectable family in the palatinate of Bavaria, where he was born, in the village of Weissenwangen, on the Bohemian border in the year 1714. His father was master of the chase to the prince Lobkowitz. From his earliest youth, he devoted himself to the study of music, and discovered talents of a high order; but it was not till after his fortieth year that he gave his immortal masterpieces to the world. Gluck studied the elements of music in Prague, was singer in a choir of that city, and soon became a skilful performer on several instruments. In 1738, he visited Italy, and studied composition under San Martini. His first opera, Artaxerxes, was written and performed in Milan, and another (Demetrius) in Venice, in 1742. A third (The fall of the Giants), he composed for the Italian opera in London, whither he went in the year 1745. During his residence there, the society of doctor Arne and his wife, an excellent opera singer, had a great influence on the simplicity of his productions. This period was the most fruitful, in respect to the number of his works. In the space of eighteen years, he composed about forty-five operas; but none of these as yet exhibited that power and depth, which he was to unfold in his later efforts. Gluck had hitherto followed the then fashionable style and taste of the Italian opera. He was sensible of its defects and felt how little his music, as a whole, could lay claim to real dramatic merit. The chief obstacle to the attainment of true dramatic perfection by the composer, was the empty and disconnected character of the poetry. It was not till accident made him acquainted with a man, who had the boldness and energy to strike out an independent path in the poetical department, that Gluck was enabled to do the same in the musical. This man was the Florentine Ranieri di Calsabigi, with whom Gluck became acquainted at Vienna, and who furnished him with a series of texts in which the unity of the whole and the necessary connexion of the different parts, contrasted strongly with the loose, disconnected airs, duets and dialogues of former works, in which no attention had been paid to dramatic unity, but every thing was sacrificed to momentary effect, or to the vanity of a singer

who was anxious to shine in particular scenes and airs, at the expense of the whole. The operas Alceste, Orpheus, and Helena and Paris, which Gluck composed in Vienna, between the years 1762 and 69, and which were there published, produced an overwhelming effect, by their boldness and originality, and served, together with the later ones, Armida and the two Iphigenias, to establish the fame of their author. Even in Italy, where the taste of the people had long been perverted, the severe and lofty muse of the German artist was received with enthusiasm, and the theatres of Rome, Parma, Naples, Milan and Venice, hastened to give his Helen and Orpheus. Alceste was not, at that time, attempted in Italy, as Gluck himself says, on account of the difficulty of the execution. So popular were these operas, that the theatre in Bologna alone took 900,000 lire (about 180,000 dollars) in one winter, and by one play (Orpheus). Still greater was the triumph of the later works, above mentioned. Durollet, who, during his residence in Vienna, had become acquainted with Gluck, undertook to convert Racine's Iphigenia into an opera, and offered his friend the text for composition, an offer which Gluck more readily accepted, as he was impressed with the idea that the French language was better adapted to the expression of strong, deep, and manly feeling, even in music, than the Italian—an opinion which, as far as it regarded music, was directly contrary to Rousseau's, and which, notwithstanding the popularity of Gluck's music on the French stage, time has not confirmed. With a degree of care which he had never before given, Gluck now began his task. Instead of the two or three weeks which he had formerly occupied in the composition of an opera, a whole year was given to the completion of the masterpiece which he designed for Paris. But here the German artist met with almost insuperable obstacles, thrown in his way by national vanity and deep rooted prejudice. As soon as it was known that a work of his pen was to be offered to the great Parisian opera, the whole host of professional musicians and amateurs exclaimed against it; and he would never have attained his object, had not his former pupil and subsequent patroness, the queen Maria Antoinette, commanded his piece to be received. In the beginning of the year 1774, Gluck himself, now sixty years old, arrived in Paris; and at length, on the 19th April, the long promised opera was represented for the first time. The house was filled to overflowing with spectators from all classes, and the impression which the whole produced was immense. At the very outset (a thing unparalleled in the musical annals of France), the overture was *encored*, and, with each part, the enthusiasm increased. In the two first years, this piece was performed 170 times. Soon after, the Orpheus, the words of which were translated into French, was brought upon the stage, and received with equal applause. Two other operas *L'Arbre enchanté*, and *La Cythère assiégée*), which were performed in the following year, were unsuccessful. Not so, however, the celebrated Alceste; in which, as in the choruses of furies in Orpheus, the hearer seems to be surrounded with the horrors of Tartarus. Armida (in 1777) met still greater applause; though formerly, when represented with Lully's effeminate music, it had not been popular. This great opera was repeated thirty times in succession, and the reputation which it procured its author was only exceeded by that of his two last great masterpieces, Iphigenia in Tauris (1779), and Echo and Narcissus. Two other operas (Roland and the Danaides) were not completed. Gluck threw the rough sketch of the former into the fire, having heard that his rival in music, Piccini, had undertaken to compose the same subject: and death prevented the completion of the latter. (It has since been finished, with tolerable success, by Salieri,) In 1784, Gluck returned to Germany, with a large fortune, and died in Vienna, on the 15th November, of the same year. We must here notice the contest that arose between the admirers of Gluck, whose compositions, by their high and finished style, produced a reformation in the music of France, and the followers of the old Italian and French school, at whose head stood Piccini, unquestionably a man of genius. All Paris took sides; and for a long time the Gluckists and Piccinists contended with the same bitterness, as did formerly the Jansenists and Jesuits, and, more lately, the Royalists and Jacobins. Gluck and Piccini themselves—to their honour be it said—shared this feeling but for a short time, and, in consequence of the mutual esteem which, notwithstanding the difference of their opinions, they could not but entertain for each other, had long become reconciled, while their blind disciples still maintained the warfare. It ought to be mentioned, that, in this musical contest, J. J. Rousseau, Arnaud, and Suard, sided with Gluck, and Laharpe and Marmontel with Piccini. It was natural that the victory should fall to those who attached themselves to the reformer. The essays which appeared on this occasion, under the names of the above mentioned authors, are preserved in an interesting collection, called *Mémoires pour servir à l'Histoire de la Révolution opérée dans la Musique par M. le Chevalier Gluck*. A year after Gluck's death, the marble bust of the great artist, made by Houdon, by subscription, was placed in the *foyer* of the opera house, by command of Louis XVI. In dramatic music, Gluck stands unrivalled in his art; and it is impossible to describe in words the depth and truth of expression which he knew how to give to the most overpowering, as well as the gentlest scenes, without any of the vulgar embellishments of trills, cadences, &c. Contrary to the custom of most composers, Gluck strictly adhered to the genius of the language, and never allowed himself improperly to lengthen or shorten words, in favour of any particular passage. In the dedication of his Alceste to Leopold, grand duke of Tuscany, his excellent views of dramatic music are beautifully and simply expressed. He introduced the trombone into the French orchestra, and the rare and judicious use of that instrument then served to heighten the effect of his great music pieces, as much as the ridiculous abuse of it at the present time, in many compositions, entirely destroys the grandeur of effect intended to be produced.

GLUCKSTADT; chief place of the duchy of Holstein, seat of the supreme court of the duchy, and of Lauenburg; about sixteen leagues north-west of Hamburg, and 68½ south-west of Copenhagen. Lat. 53° 47′ 42″ N.; lon. 9° 27′ 10″ E. Population, 5176. The inhabitants are largely concerned in the Greenland whale fishery. The harbour is not commodious.

GLUE, among artificers; a tenacious, viscid matter, which serves as a cement. Glues are of different kinds, according to the various uses they are designed for, as the common glue, glove glue, parchment glue, isinglass glue, &c. The common or strong glue is made of the skins of animals; as oxen, cows, calves, sheep, &c.; and the older the creature is, the better is the glue made of its hide. Indeed, whole skins are rarely used for this purpose, but only the shavings, parings, or scraps of them; or the feet, sinews, &c. Those who make glue of parings, first steep them two or three days in water; then wash them well out, boil them to the consistence of a thick jelly, which they pass, while hot, through osier baskets, to separate the impurities from it, and then let

it stand some time, to purify it further; when all the filth has settled to the bottom of the vessel, they melt and boil it a second time. They next pour it into flat frames or moulds, whence it is taken out pretty hard and solid, and cut into square pieces or cakes. They afterwards dry it in the wind, in a sort of coarse net; and at last string it, to finish its drying. The best glue is that which is oldest; and the surest way to try its goodness, is, to lay a piece to steep three or four days, and if it swell considerably without melting, and when taken out resume its former dryness, it is excellent. A glue that will hold against fire or water, may be made thus: mix a handful of quick lime with four ounces of linseed oil, boil them to a good thickness, then spread the paste on tin plates in the shade, and it will become exceedingly hard, but may be dissolved over a fire, as glue. *Method of preparing and using glue.*—Set a quart of water on the fire, then put in about half a pound of good glue, and boil them gently together till the glue be entirely dissolved, and of a due consistence. When glue is to be used, it must be made thoroughly hot; after which, with a brush dipped in it, besmear the faces of the joints as thick as possible; then, clapping them together, slide or rub them lengthwise one upon another two or three times, to settle them close, and so let them stand till they are dry and firm. Parchment glue is made by boiling gently shreds of parchment in water, in the proportion of one pound of the former to six quarts of the latter, till it be reduced to one quart: the fluid is then strained from the dregs, and afterwards boiled to the consistence of glue. Isinglass glue is made in the same way: but this is improved by dissolving the isinglass in alcohol, by means of a gentle heat. See *Cement*.

GLUTEN; a vegetable compound, procured by repeatedly washing wheat flour in a large quantity of water, by which means the starch is dissolved, leaving the gluten behind in a very tenacious, ductile, somewhat elastic state, and possessed of a brownish grey colour. It has scarcely any taste, and is insoluble in water, alcohol, and ether, but is taken up by acids and alkalies. The acid solution is precipitated by an alkali, and, reciprocally, the alkaline solution by an acid. Dried by a gentle heat, it contracts its volume, and becomes hard and brittle. Its products with fire, or nitric acid, are nearly the same as those of gum and sugar. Gluten is present in most kinds of grain, such as wheat, barley, rye, oats, peas, and beans; but the first contains it in far the largest proportion, which is the reason that wheaten bread is more nutritious than that made with other kinds of flour; for, of all vegetable substances, gluten appears to be the most nutritive. It is to the presence of gluten, that wheat flour owes its property of forming a tenacious paste with water, to which cause is due the formation of light spongy bread. The carbonic acid, which is disengaged during the fermentation of the dough, being detained by the viscid gluten, distends the whole mass, and thus produces the rising of the bread. Good wheat flour contains from nineteen to twenty-four per cent. of gluten. The wheat of warm climates is richer in gluten than that of colder regions. Gluten consists of two distinct principles; to one of which has been applied the name of *gliadine*, from γλια, gluten, and to the other that of *zymome*, from ζυμη, a ferment. To obtain these principles, the gluten is boiled repeatedly in alcohol, which dissolves the gliadine, and leaves the zymome in a pure state. On mixing the powder of guaiacum with the latter substance, a beautiful blue colour instantly appears; and the same phenomenon ensues, though less rapidly, when it is kneaded with gluten, or the flour of good wheat moistened with water. With bad flour, the gluten of which has suffered decomposition, the blue tint is scarcely visible. The intensity of the colour thus produced is entirely dependent on the relative quantity of zymome contained in the flour; and, since the quantity of zymome is proportional to the quantity of gluten, the proportion of the latter, and therefore the quality of the flour, is tested by the action of the guaiacum.

GLUTTON (*gulo*). This genus of quadrupeds is distinguished by the head being but moderately elongated, and the body long in proportion to its height from the ground. The ears are rounded and very short. There is a simple fold of the skin below the tail, instead of the pouch observable in the badger, to which animal it bears some resemblance. It may, in fact, be considered as intermediate between the true plantigrade and digitigrade animals. Desmarest describes four species; one of which, the *G. arcticus*, or wolverene, is an inhabitant of the northern parts of America (*G. luscus*, Sabine). The wolverene is about twenty-eight inches in length from the tip of the nose to the origin of the tail, which latter is about eight inches, if the hair at the extremity be included, which is from three to four inches long. The whole body is covered with very long and thick hair, which varies in colour according to the season or other circumstances. Its summer coat is generally as follows:—Face blackish as high as the eyebrows, and between these and the ears whitish or brownish; ears covered with coarse hairs; the lower jaw and the inside of the fore legs spotted with white; upper part of the back, thighs, and under part of the belly, brown or brownish black; sides, chestnut colour.—This fur is of considerable value, and is much used in the northern parts of Asia, of which the wolverene is also a native, for making and ornamenting robes. The animal, however, does not breed in sufficient numbers to furnish any great collection to the fur traders. It is very voracious, but at the same time slow and heavy in its motions, though it is remarkably acute in its sight and hearing. It is amazingly powerful, and an overmatch for any animal of its own size. It makes a strong resistance when attacked. If it can lay hold of it, it will tear the stock from a gun, and pull the traps, in which it is caught, to pieces. It has been stated by persons who are familiar with its habits, that it will lurk on a tree, and drop on a deer passing underneath, and fasten on it, drinking the blood, till the unfortunate animal dies from exhaustion. It is one of the most destructive quadrupeds found in the northern part of America, destroying great numbers of young foxes, and other animals; it is also a great enemy to the beaver, watching them as they come out of their houses, or even breaking into their habitations. Among other fabulous accounts of this animal is that given by Olaus Magnus; that it eats so voraciously, that it is forced to go between two trees, in order to force out part of the food. The other species are the *G. vittatus*, a native of South America; extremely ferocious, and, although capable of being tamed, never losing its disposition to attack the smaller animals; *G. barbatus*, which is likewise a native of South America. This species lives in a burrow, and is easily tamed. It has a strong musky odour. *G. capensis*; a native of the cape of Good Hope. This species is very destructive to bees, destroying their nests for the sake of the honey and wax, of which it is very fond.

GLUTTONY. One of the most disgusting of vices, and, according to the Catholic church, placed amongst the seven deadly sins, consists in an extraordinary and depraved indulgence of appetite, whether in solid or fluid food. When it exists as a disease, it is called Bulimia, *fames canina*, or dog-like hunger, and the person must either be indulged with food or falls into fainting fits. The unfortunate

sufferer is then rather an object of pity than of disgust or contempt. Fuller, in his "worthies," mentions a man named Nicholas Wood, of Harrison, in Kent, who had once eaten a whole sheep, raw, at a single meal; and, at another time, thirty dozen of pigeons; who once, at lord Wotton's, devoured eighty-four rabbits, and ate eighteen yards of black pudding for a breakfast. There was also a counsellor at law, named Mallet, who lived in the reign of Charles the First, who, at one meal, ate up a whole ordinary provided in Westminster for thirty men; and his income not being adequate to procure him a sufficiency of good food, he generally fed upon offals, ox livers, hearts, and other entrails. But this man having lived to be sixty years old, during the last seven years of his life a change took place in his constitution, and he ate as moderately as other men. In the Roman History many instances are related of the most disgusting gluttony, both amongst the Roman emperors themselves and their subjects. Hardiknute, too, who was the last of the Danish race of kings in England, was addicted to this horrible propensity, to which he fell a victim, having dropt down dead during a wedding banquet in his palace at Lambeth.

Gluttony is also a symptom attendant upon a very dangerous and fatal disease called diabetes mellitus, which consists in an excessive secretion of urine, amounting, at times, to thirty or forty quarts in the course of twenty-four hours.

GLYPTIC (from γλυφω, I engrave); the art of engraving figures, &c., on stones and other hard substances. See *Gem-Sculpture*.

GLYPTOTHECA; a building in Munich appropriated to the reception of the remains of ancient sculpture. It forms a square, enclosing a court.—The works of art are distributed in ten rooms, which exhibit historically to the eye the growth of Greek art from Egyptian roots, its rise and progress in Rome, its decline and subsequent revival. There are, besides, three other rooms, appropriated to festivals connected with the arts. Among several hundreds of these works of art, in general but little known, we here see the remains of Æginetic art (q. v.); the sleeping faun; the colossal muse; Nero and the group of Isis, from the Barberini palace; the Pallas; the Leucothea; the *fauno colla macchia*, and the colossal Antinous, from the Albani palace; the Rondanini muse; the Gabinian Diana of Brasihi; the Pallas and Roma of Fesch, &c. The whole is perhaps the most appropriate building for its purpose in modern times. The saloons, devoted to meetings, have been painted in fresco by Cornelius. (q. v.)

GMELIN; 1. John George, professor of botany and chemistry in Tubingen, where he was born in 1709, and where he studied until 1727. He then went to Petersburg, with his teachers, Bilfinger and Duvernoi, and in 1731 became professor of chemistry and natural history. In 1733, at the command and at the expense of the empress of Russia, he travelled to Siberia, in order to examine the country. From this laborious but highly instructive expedition he did not return until 1743. He died in 1755, at Tubingen, where he was then professor. He early became acquainted with natural history and chemistry, for the study of which latter science he had a good opportunity in the house of his father, who was a respectable apothecary. His persevering efforts obtained him the reputation of being one of the greatest botanists of his time. His principal works are his *Flora Sibirica* and his Travels.

2. *Philip Frederic*, brother of the preceding, was born at Tubingen, in 1721. After his brother's death, he became professor of botany and chemistry at Tubingen, where he died in 1768. He wrote several botanical and medical works.

3. *Samuel Gottlieb*, a nephew of the preceding, was born in 1744, at Tubingen, where he studied physic, and, in 1763, took the degree of doctor of medicine. He afterwards visited Holland and France, and, in 1767, received an invitation to a professorship in the academy at Petersburg. The year following, by the command of the empress, he commenced, together with Pallas, Guldenstadt, and Lepechin, a scientific tour through Russia. In 1769, he travelled along the western side of the Don, and passed the winter in Astrachan; in 1770 and 1771, examined the Persian provinces on the south and south-west side of the Caspian sea; in 1772, returned again to Astrachan, and there surveyed the regions on the Wolga, and, in 1773, the dangerous countries east of the Caspian sea. On his return, however, in 1774, he was imprisoned by the Khan of the Chaitaks, and died in confinement, July 27, of the dysentery. His widow received from the Russian empress 2000 rubles. His most important works are his *Historia Fucorum*, and his Travels in Russia (*Reisen durch Russland zu untersuchung der drei Naturreiche.*)

4. *William Frederic*, a distinguished engraver, was born at Badenweiler in the Brisgau, in 1745, and died at Rome, in 1821. His parents sent him to Basle. Here, guided only by his genius, he overcame numerous obstacles. In 1788, Gmelin went to Rome, and subsequently to Naples. At the close of 1790, he returned to Rome, and there actively engaged in painting from nature, for the most part in Indian ink. He did not diminish the effect by descending to minute detail, but knew how to seize upon the peculiar characteristics of every view, and his style evinces a deep study of nature. He also engraved a good deal. His engravings are among the finest productions of the art. In some of his later productions, indeed, a hardness and an exaggerated expression are perceptible. He cut his plates very deep, probably to enable him to take many impressions. Gmelin amassed a considerable fortune, as his engravings were in great demand.

GNADE (the German for *grace*); a word with which the names of many places founded by the Moravians begin; as *Gnadenberg*, in Silesia, with 460 inhabitants, one of the chief places of that fraternity; *Gnadenfeld*, a village also in Silesia; *Gnadenfrey*, also in Silesia, with 800 inhabitants, and a Moravian institution for education; *Gnadenhütten*, a Moravian village in Ohio; *Gnadenthal*, a colony of 1377 inhabitants, among the Hottentots; and many others.

GNAT (*culex*). These well known and troublesome insects are distinguished by having the body and feet very long and downy, antennæ garnished with hairs; large eyes; a proboscis composed of a membranous cylindrical tube, terminated by two lips, forming a little button, and sucker formed of five scaly filaments, producing the effect of a needle: the wings are placed horisontally over each other. The gnat of this country is comparatively harmless; but those of warmer climates are peculiarly annoying, especially in marshy situations. They pursue the inhabitants, enter the houses, especially in the evening, announcing their arrival by a sharp bussing noise. When they bite, the sucker is plunged through the skin, and, as it buries itself, the sheath or trunk is drawn up towards the breast. The pain of the wound is occasioned by a venomous fluid which they inject into it; the best remedy for which are preparations of ammonia. It is a curious fact, that it is only the females which are thus tormenting. One species of these insects is known under the name of *mosquitoes*, against whose attacks various means have been resorted to in different countries, as curtains of gauze, and various essential oils; the latter of which

appear to be only partially successful. The Laplanders drive them off by means of smoke, and anointing their bodies with grease. These insects also feed on the juice of plants. The female deposits her eggs on the surface of the water, in a long mass. In their larva state, these animals are aquatic during the greater part of the summer. All stagnant waters are full of these small worms, hanging with their heads downwards, whilst their hinder parts reach the surface of the water. In this state the stigmata, or organs of respiration, are placed in the posterior part of the body; they are also, in this condition of existence, provided with small fins. After having remained in the larva state for about twenty days, they are tranformed into chrysalids, in which all the limbs of the perfect insect are distinguishable, through the diaphanous robe with which they are then shrouded. After remaining three or four days wrapped up in this manner, they become gnats, and ascend into a new element. No sooner does the chrysalis reach the surface of the water, than the insect with its head bursts the shell, which then serves it for a boat, of which its wings are the sails. If in this critical moment a breese arises, it proves a dreadful hurricane to these pigmy sailors; for it oversets the little bark, and the insect, not being yet disengaged from it, suffers a fatal shipwreck. If, however, the weather prove calm, the gnat makes a more prosperous voyage. Having time to dry his wings, before leaving the boat, he is enabled to mount into the air, where, contemptible as he may seem, he soon becomes the inveterate tormentor of the lords of the creation. *(Réaumur, Cuvier, &c.)*

GNEISS; one of the three most ancient and most abundant rocks of our globe, of which granite and mica-slate are the other two. These are all destitute of organic remains, and constitute the foundation on which rocks of all the other classes are laid. They are composed of quarts, feldspar and mica, and possess a distinctly crystalline structure. They appear to pass by gradation into each other, and might, perhaps, with more propriety be regarded as modes of the same rock, than as different species. Gneiss received its name from the German miners, who applied it to a decomposed stone forming the sides of certain metallic veins; but Werner fixed the acceptation at present attached to the word, which is that of a schistose or slaty granite, abounding in mica. Granite frequently passes into gneiss by an almost imperceptible gradation: when the quantity of feldspar decreases, and the crystalline grains become smaller, if the mica increases in quantity, and is arranged in layers, the rock loses the massive structure, and becomes schistose;—this then is a true gneiss. When the mica becomes very abundant, and the other constituents parts are small in size and quantity, gneiss passes into mica-slate. Hornblende sometimes takes the place of mica in the composition of gneiss. When this is the case, the rock is called *hornblende gneiss*, or *gneissoid hornblende*. Gneiss is a rock much less prolific in disseminated minerals than either of the other primary rocks above mentioned. It occasionally, however, contains garnets interspersed through its strata. But the metallic veins and beds of other minerals which it presents are very remarkable. Thus gold is found in it in Dauphiny, at the foot of Monte Rosa; silver, cobalt and antimony near Allemont; and lead and silver at Auvergne, Freyberg, and in Bohemia. The famous copper mines at Fahlun, in Sweden, occur in this rock. It contains iron ore in profusion also, as in the mines of Scandinavia, at Dannemora, Utoe and Arendal; and in the United States, upon the borders of lake Champlain; at Franconia, in N. Hampshire, and in the northern parts of N. Jersey. Gneiss embraces also extensive deposits of white crystalline limestone and of serpentine, the beds of which are frequently so thick as to compose mountain masses. With regard to the distribution of gneiss, it may be remarked that it is the principal rock of very extensive districts. In forms the declivities of immense mountain chains of granite, and even constitutes entire mountains of itself. It is the predominating rock of Norway and of all the north of Europe. It abounds in the southern Alps and the Pyrenees, and forms the loftiest chains of the Andes of Quito. In the United States, also, gneiss is a predominating rock, especially in New England and the eastern and southern parts of New York. The direction of its strata in these states is from the north-east to the south-west, with a dip to the north-west of from 50° to 80°. Gneiss is a rock much used in the United States for the purposes of architecture, and is particularly esteemed in all our larger cities, as furnishing the best flag-stones. The well known quarries of Haddam (Conn.), and its vicinity, afford employment for several hundreds of men.

GNOME *(Greek)*; a short, pithy saying, often expressed in figurative language, containing a reflection, a practical observation, or a maxim, common among the oldest Eastern nations. The Proverbs of Solomon, those of Jesus son of Sirach, and the Sermon on the Mount, are examples. Every nation preserves its first observations and discoveries, in the moral world, in short, pithy, striking sentences. The Samundian Edda has preserved excellent proverbs of Odin. Among the Greeks, Theognis, Phocylides, and others, are called the *Gnomic poets*, from their sententious manner of writing. (See Brunck's *Gnomicæ Poetæ Græci.)* The Romans had many maxims of this kind from the elder Cato. Those of the Arabians were written in rhyme. The Hebrew are striking on account of their parallelisms. An energetic or enigmatical brevity is always a characteristic of the *gnome*.

Gnome. Modern mythology has given this name to the spirits which dwell in the interior of the earth, where they watch over hidden treasures. They assume a variety of forms, and are sometimes beautiful, and sometimes hateful. The last, however, is their appropriate form; but their females, *gnomides*, are originally beautiful. Among them all, Rubezahl, by means of Musaus' popular tales, has obtained the greatest celebrity in Germany. In Germany, Gnomes (spirits of the earth), Sylphs (spirits of the air), and Undines (spirits of water), are all comprehended, with the spirits of the woods, under the old name *Kobolde*. (q. v.) The native country of these poetical beings is the East, and they belong to the cabalistical phantasms. The Talmud informs us that a *Gnome*, in the form of a worm of the size of a barleycorn, was very useful to Solomon in the building of his temple, by splitting large masses of rock for him, and transforming them into smooth slabs without any assistance. Solomon had, indeed, employed many arts and much labour to obtain possession of it. These elves were introduced into Europe by the cultivation of the Pythagorean cabalistical philosophy, since the time of Raymund Lully, from the middle of the fifteenth to the beginning of the sixteenth century, by Pico of Mirandola, Marsilius Ficinus, Paracelsus, Cardanus, and Reuchlin. The Gnomes make a part of Pope's machinery in the Rape of the Lock. (See Dobeneck's German popular Superstitions *in the Middle Ages—Des Deutschen Mittelalters Volksglaube*, 2 vols., Berlin, 1815.) See also the article *Kobalis*.

GNOMON, in astronomy, is an instrument or apparatus for measuring the altitudes, declinations, &c., of the sun and stars. The gnomon is usually a pillar

or column, or pyramid, erected upon level ground, or a pavement. For making the more considerable observations, both the ancients and moderns have made great use of it, especially the former; and many have preferred it to the smaller quadrants, both as more accurate, and more easily made and applied. The most ancient observation of this kind extant, is that made by Pytheas, in the time of Alexander the Great, at Marseilles, where he found the height of the gnomon was in proportion to the meridian shadow at the summer solstice, as 213½ to 600; just the same as Gassendi found it to be, by an observation made at the same place, almost 2000 years after, viz., in the year 1636. This method of observation, however, is by no means accurate, as is proved by the following deficiencies in the ancient observations made in this manner:—1. The astronomers did not take into account the sun's parallax, which makes his apparent altitude less than it would be if the gnomon were placed at the centre of the earth. 2. They neglect refraction, by which the apparent height of the sun is somewhat increased. 3. They made their calculations as if the shadows were terminated by a ray coming from the sun's centre; whereas it is bounded by one coming from the upper edge of his limb. These errors, however, may be easily allowed for; and, when this has been done, the ancient observations are generally found to coincide nearly with those of the moderns.

Gnomon, in dialing, is the style-pin or cock of a dial, the shadow of which points out the hours. This is always supposed to represent the axis of the world, to which it is therefore parallel, or coincident, the two ends of it pointing straight to the north and south poles of the world. See *Dial*.

Gnomon, in geometry, is the space included between the lines forming two similar parallelograms, of which the smaller is inscribed within the larger, so as to have one angle in each common to both.

GNOMONICS; the art of dialing, or of drawing sun and moon dials, &c., on any given plane, so called, as it shows how to find the hour of the day, &c., by the shadow of the gnomon or style.

GNOSTICS (*Greek*; γνωσις, knowledge). This name was assumed by a religious philosophical sect, which combined the phantastic notions of the Oriental systems of religion with the ideas of the Greek philosophers, and the doctrines of Christianity. There were sages, as early as the times of the apostles, who boasted of a deeper insight into the origin of the world, and of the evil in the world, than the human understanding, so long as it remains in equilibrium, can deem admissible, or even possible. Simon the magician, of whom Luke speaks in the Acts of the Apostles, was the first among them. Even in *his* dogmas, we discover the traces of ideas which were common to all the Gnostics; and they bear the unquestionable impression of an Oriental, particularly of a Persian and Chaldaic origin. They may be reduced to the following heads:—God, the highest intelligence, dwells in the plenitude of light, and is the source of all good; matter, the crude, chaotic mass of which all things were made, is, like God, eternal, and is the source of all evil. From these two principles, before time commenced, emanated beings called *æons*, which are described as divine spirits. The world and the human race were created out of matter, by one æon, demiurge or, according to the later systems of the Gnostics, by several æons and angels. The æons made the bodies and the sensual soul of man (*sensorium*, ψυχη) of this matter; hence the origin of evil in man. God gave man the rational soul; hence the constant struggle of reason with sense. What are called gods by men (for instance, Jehovah, the God of the Jews), they say, are merely such æons or creators, under whose dominion man became more and more wicked and miserable. To destroy the power of these creators, and to free man from the power of matter, God sent the most exalted of all æons, to which character Simon first made pretensions; he was followed in these pretensions by Menander, a Samaritan, the most celebrated of his scholars, who, towards the end of the first century, founded a sect at Antioch in Syria. Simon, and Menander were enemies to Christianity. Cerinthus, a Jew, of whom John the evangelist seems to have had some knowledge, combined these reveries with the doctrines of Christianity, and maintained, that the most elevated æon, sent by God for the salvation of man, was Christ, who had descended upon Jesus, a Jew, in the form of a dove, and, through him, revealed the doctrines of Christianity; but, before the crucifixion of Jesus, separated from him, and, at the resurrection of the dead, will again be united with him, and lay the foundation of a kingdom of the most perfect earthly felicity, to continue a thousand years. In the second century, during the reign of Adrian and both the Antonines, these principles were adopted by the Christian philosophers, who are more particularly known under the name of *Gnostics*, and still further refined, extended, and systematized. Saturninus, a Syrian, speaks of an unknown supreme God, who had generated many angels and powers; seven of these æons were, according to him, creators of the world, and soon fell from God; one of them, the God of the Jews, had seduced man to him; whence originated the difference between good and bad men. Saturninus also calls Christ the Saviour sent by God, and the Son of God; but the opinion that Christ was not actually born, and had not a real human body, but only an incorporeal image, is peculiar to him, on which account, his followers and other later Gnostics, who agreed with him in this respect, were called *Docetæ* and *Phantasiasts*. Saturninus very consistently denied a resurrection of the body, and admitted only a return of the souls of good men into the being of the Godhead. His sect was distinguished by austerity of manners, by their abstinence from flesh, and by a rejection of matrimony. Basilides, his contemporary, an Alexandrian, was distinguished from him by the use of a language imitated from the Egyptian priests, though yet more mystic than theirs. According to him, the generations of several (celestial) degrees, each containing seven æons, and of which his kingdom of light consists, are emanations, and every inferior family or order of this kingdom is a copy of the higher. The internal harmony of the lowest order of this kingdom of light, was disturbed by the kingdom of darkness, which, perceiving its rays, endeavoured to form a union with it. Pure natures were therefore drawn downwards into the dead mass, out of the former kingdom, and became engaged singly in purifying combats with matter. Hence arose the visible world, the object of which is the final separation of the good, and of those allied to the kingdom of light, from the material dross. The souls or natures fallen from light, pass for their purification, in this world, through different bodies and conditions, which Basilides proves from the different degrees of fortune and the different education of men. The highest point of this purification, however, was unknown to the most exalted æon of the lowest order, whom Basilides considers the creator of the world. Therefore, the first-born of the supreme original being united itself with the man Jesus on his baptism in Jordan in order to redeem souls, that is, to elevate them above the worldly course to the highest order of the kingdom of light. His sufferings were but those of an innocent child, which shares the lot of human nature, and had no relation to his work.

This is accomplished by the faith of the souls in Christianity, which Basilides calls an elevation of the soul, arrived to a consciousness of its destination, into the kingdom of light. Although this poetical view differed widely from the simplicity of the Christian religion, and betrayed the indulgence of a philosophising fancy, still Basilides concurred in the Christian system of morals, and disapproved only of seeking a martyr's death. The mysterious colouring and the glitter of Basilides's theories procured him many followers. They often misunderstood him, however, and gave themselves up to many superstitious notions about abraxas stones and amulets. Isidore, his son, extended his sect, which, in the fourth century, entirely disappeared. The system of Carpocrates, an Alexandrian, who also flourished during the reign of Adrian, was distinguished from the one which we have just described, in this respect only, that he considered Christ as a mere man, whose purer and more powerful soul had more accurately remembered what it had seen with God, before its union with the body. The fathers of the church, Clement of Alexandria, Irenæus, Eusebius and Epiphanius, from whom, in general, we derive all our information concerning the Gnostics, accuse the moral system of Carpocrates of destroying all distinctions between good and evil, and inculcating an unlimited indulgence of the sensual appetites. Certain it is, that his followers practised the most detestable vices, and were the cause of many of the calumnies of the heathen writers concerning the Christians of this century. The most conspicuous of Carpocrates' scholars was Prodicus, who has, however, been erroneously called the founder of the sect of Adamites. (q. v.) The sect of Carpocratians, however, which, in Egypt and Italy, but especially in the islands, met with much success, became extinct as early as the beginning of the third century. The most complete and ingenious of all the Gnostic systems was founded in the second century, by Valentinus, a learned and eloquent Alexandrian. In that light or plenitude, which all the Gnostics make the residence of the Supreme God, he has placed fifteen male and as many female æons, produced by successive intermarriages. The Supreme God, the Unbegotten, the Original Father, whom he also calls the *Deep* (Bathos), is the first of these æons; Thinking Silence was his wife, and Intelligence, a male, and Truth, a female, were their children. These produced The Word and Life; the latter a female, who gave birth to mankind and society. These eight constituted the first class of the thirty æons. The second class, of five couples, at the end of which stood the Only Begotten, and the third, of six couples, at the head of which stood the Comforter, were, in a similar manner, descended from mankind and society, and consisted, like the first, of personified ideas. The officers of this heavenly state are four male æons: Horus, who guards the boundaries of the region of light; Christ and the Holy Ghost, which instruct the other æons in their duties; and Jesus, whom all the æons of the kingdom of light begat in common, and endowed with their gifts, as all the inhabitants of Olympus did Pandora. Wisdom, the last female æon of the third class, envied Intelligence, on account of his knowledge and, in the heat of her unrestrained passion, produced an unformed female æon, Achamoth or Enthymesis (Reflection, Consideration), which fell into the darkness of matter, and was endowed with a form by Christ out of compassion. Achamoth longed for the lost heavenly light. Fear, anguish, melancholy and laughter, alternately took possession of her. Her ungratified desire, at length, produced the soul of the world and other souls. From her tears originated the water; from her laughter, transparent matter; and from her sorrow, opaque matter. Christ was moved with compassion for this fallen creature, and sent her Jesus, who communicated to her knowledge, and delivered her from her pain. After this fortunate change, she bore three substances—a material, a spiritual, and a soul-like substance. Out of the last, the demiurgus, or the creator of the world, was formed, who, according to Basilides, made the heavens with their angels out of this soul-like substance, and selected the highest of these heavens for his own mansion: of the material substance, under the influence of Achamoth's fear, beasts were made; under the influence of her melancholy, wicked spirits, whose prince is the lord of the world; and under the influence of her anguish, the elements of the world which contain fire. Man is formed out of all three substances. Christ, the Saviour of men, when he appeared on earth, had a visible body, made of finer material, and was composed of the spiritual and the soul-like substance only. At his baptism, the æon Jesus united itself with him, and instructed mankind. Valentinus describes the occurrences of his life, and his good deeds, like Saturninus, with the exception of one peculiarity. He says, that, when all the spiritual parts shall have been delivered from matter, Achamoth will unite herself with Jesus in the divine region of light; that she will draw the good souls to herself; that the heaven of the demiurgus will receive the most virtuous, and that the world will be consumed with fire. The Valentinian party, which rose towards the middle of the second century in Rome, and especially in Cyprus, and which was distinguished by its austere manners, was the most numerous of all the Gnostic sects, and continued until after the commencement of the fourth century. Marcion of Sinope, and Cerdo, a Syrian, renounced many of the absurdities of the earlier Gnostics, and formed a regular system, the characteristic of which was the rejection of the Old Testament. Marcion distinguished two supreme principles, God and the devil. The true God begat many spirits, among which were the creator of the world, the righteous God, and the lawgiver of the Jews. The last, through the prophets, promised Christ; but Jesus, who actually appeared, and is the true Redeemer, was the Son of the truly good God, and not the Jewish Messiah. This peculiar dogma of Marcion caused his separation from the Catholic church, in which Tertullian, in particular, successfully defended the honour of the Old Testament against him. The Marcionites were very numerous, and had, even to the beginning of the fifth century, many societies, and their own bishops in Italy, Syria, Arabia, and Egypt; and they maintained the reputation of blameless lives, while, according to the precept of their founder, in order to have as little as possible to do with matter, they avoided eating flesh, drinking wine, and matrimony. It is doubtful whether Marcion and Cerdo were also the founders of the sect which, towards the end of the second century, arose under the name of the *Ophites* (q. v.), and which, on account of the resemblance of their theogony to that of the Valentinians, were reckoned among the Gnostics. In the same period, Tatian, a Syrian, who had distinguished himself by his Harmony of the Four Gospels, and his discourses against the Greeks or heathens, adopted Gnostic doctrines, and founded a sect, the followers of which, after one of his pupils, were called *Severians;* on account of their austerity, *Encratitæ* or *Hydroparastatæ* (water-drinkers); and, because they renounced all property, *Apotactitæ*. Bardesanes, a Syrian, and Hermogenes, an African, who, in the reign of the emperor Commodus, apostatised from Christianity, and established sects, bordered, in their hypotheses concerning the

origin of good and evil, upon Gnosticism. On the whole, when we take into consideration the philosophical tendency of that age, the passion for the marvellous, that had taken possession of the effeminate nations of the Roman empire, and the custom of pretending to a deeper insight into the secrets of nature and the divinity, it is not to be wondered at that a religious philosophy, which adopted the most brilliant parts of Platonism, and which afforded nourishment alike to the imagination and to the vanity of secret wisdom, should have met with such universal success. By the austerity of its precepts, and its care for the wellbeing of the soul, it even prepossessed good men in its favour. The Gnostics were the Pietists of the third and fourth centuries. The Catholic church took occasion, from their heresy, to give greater precision to the articles of the orthodox faith. There have been no Gnostic sects since the fifth century; but many of the principles of their system of emanations re-appear in later philosophical systems, drawn from the same sources as theirs. Plato's lively representation had given to the idea of the Godhead something substantial, which the Gnostics transferred to their æons; and Leibnits's effulgurations of God, Ploucquet's real presentations of God, saint Martin's pictures and mirrors, and the like, as well as the Gnostic æons, are a proof that the essays of the human understanding to explain the creation, and the origin of imperfect beings from the perfect, always end in similar results. The latest and most learned writings upon this subject are those of Lewald and Neander, particularly a work of the latter, entitled, *Genetische Entwickelung der vornehmsten gnostischen Systeme* (Berlin, 1818).

GNU. This curious animal belongs to the genus *antelope*, and subgenus *boselaphus* (Blainville). It is called *gnu* by the Hottentots, and *wilde beest* by the Dutch. Though arranged by naturalists among the antelopes, it appears to form one of those intermediate links, which connect, as it were, the various tribes of animals in one harmonious whole. This animal resembles, in form, partly the horse, partly the buffalo, and partly the stag. It is as large as a middle sized horse. Its neck, though neither so long or slender as that of the horse, is more so than that of the buffalo, and is adorned with a stiff erect mane. On the forehead, between the nose and flexures of the horns, the face is covered with an obtong tuft of stiff black hairs, turned upwards. Beneath the lower jaw is also a thick, shaggy beard. Its legs are long, and elegantly formed, like those of the stag; the space between the fore legs is covered with long bushy hair. Its horns are rough, and are enlarged at their base, like those of the buffalo; they spring from the hinder part of the head, and, after bending forward beyond the eye, turn suddenly upwards. Both sexes are furnished with these appendages. In the young animal, they are perfectly straight, acquiring their flexure as the animal grows older. They are provided with lachrymal openings under the eyes. The gnu is a lively, capricious animal. It is affected by the sight of scarlet, like the buffalo or bull. When irritated, it expresses its resentment by plunging, curveting, tearing the ground with its hoofs, and butting with its head. When wounded, it is reported to be sometimes dangerous to the hunter. These animals feed in large herds, and it is only when stragglers have been accidentally separated from the herd, that any of them are found in a solitary state. Their flesh is very juicy, and more agreeable and nourishing than beef. When taken young, they are readily tamed; but the inhabitants of South Africa seldom attempt to domesticate them, as they are said to have a tendency to catch and communicate to the other cattle a dangerous infection. This animal is by no means common in our collections. There is, we understand, a tolerably good one belonging to the Liverpool zoological gardens.

GOA; a district of India, belonging to the Portuguese, in the province of Bejapoor, forty miles long by twenty broad, situated on the western coast of India, between the fifteenth and sixteenth degrees of north latitude.

Goa; a city of India, and the capital of all the Portuguese settlements in that country. It is situated on an island of about twenty-four miles in circumference, at the mouth of the Mandova river. It in fact consists of two cities, the old and the new. The former is eight miles up the river, and, though almost deserted, contains many magnificent churches, and excellent specimens of architecture. The viceroy and principal inhabitants reside in the new city, which is at the mouth of the river, within the forts. It possesses two harbours, well defended by various castles and batteries, mounting very heavy cannon. It still carries on an inconsiderable trade with the mother country, with China, and the coast of Africa; but its expenses far exceed its revenues. The inhabitants of the city and island are computed to amount to 20,000, but of these there are very few genuine Portuguese. Lon. 73° 57′ E.; lat. 15° 30′ N. The island was called, formerly, *Tissuari*, and was inhabited by an Arabian tribe, when, in 1510, Albuquerque conquered the city, with the peninsulas Bardes and Salsette. Ever since 1559, it has been the residence of the Portuguese governor-general. The port is only open for the Portuguese flag. The air is unwholesome. The still existing edifices are silent witnesses of its former magnificence. The inquisition of Goa formerly had jurisdiction over all Christians in the Portuguese settlements; but, in 1815, its papers were burnt, and the inquisition abolished. The commerce is in the hands of Christians, the smaller trade in those of Jews and Banians. Since 1812, twenty-four large vessels annually carry the merchandise received there from the other Portuguese colonies, and from Canton, to Europe. The crown has the monopoly of sugar, snuff, pepper, saltpetre, pearls, and sandal wood.

GOAT (*capra*). This genus of quadrupeds is distinguished by the horns almost joining at the bases, and bending backwards; having eight cutting teeth in the lower, but none in the upper jaw, and generally a beard on the chin. Desmarest gives three species, of which there are numerous varieties. These are the *C. ibex*, the *C. caucasica*, and the *C. ægagrus* or domestic goat. The goat, even in a state of domestication, is vicious, subtle and lecherous. Like the wild species, it is amasingly swift and agile, climbing the most rugged mountains, and fearlessly browsing at the very edge of the steepest precipices. The female goes five months with young, and commonly brings forth one or two, but sometimes even three or four, at a birth. The kids are generally produced early in the spring. The buck has a rank, nauseous smell, which proceeds from his skin. Though fond of the summits of bleak and lofty mountains, the goat cannot bear extreme cold. The domestic goat is known in almost all parts of the globe. If we may judge from the expressions of the ancient pastoral poets, goats were formerly tended in Greece and Italy with no less care than sheep. The flesh is much esteemed by some nations, though it is far inferior to mutton. The milk is excellent, and has been thought peculiarly serviceable for consumptive persons. But the skin is the most valuable part of this animal. It is prepared for a variety of purposes, and takes a dye better than any other skin, and is well known under the name of *morocco*. The tallow of the goat is

also an article of considerable importance. It is much purer and finer than that of the ox or sheep, and furnishes much whiter and better candles. The Cashmere goat, as its name indicates, is a native of the kingdom of Cashmere; it is smaller than the common domestic goat, and has long, silky, fine hair, not curled, as in the Angora goat. This variety has been successfully introduced into Erance, where it has bred with another variety, equally valuable, the Thibet goat. From these animals are procured the materials for the manufacture of Cashmere shawls. (See *Cashmere Goat.*) The Angora goat is also furnished with soft, silky hair, of a silver-white colour, hanging down in curling locks eight or nine inches long. Its horns are in a spiral form, and extend laterally. It is remarkable, that not only the goat, but even the sheep and hare, of Angora, have longer and softer hair than the same animals in any other part of the world. From the wool of this goat, the finest camlets are made. Syria affords a peculiar variety of the goat, of which but little is known. The ears are usually between one and two feet in length, and are sometimes so troublesome to the animal, that the owners are obliged to trim them. This variety appears to have been known to Aristotle. There are several other varieties of the common goat, which it is needless to enumerate. There is a species in North America, which has given rise to much difference of opinion as to its proper place in a system of arrangement. Mr Ord, who first described it, called it *ovis montana*. Blainville first termed it *rupicapra Americana*, and afterwards *antelope Americana;* whilst Hamilton Smith, although he retains the latter genus, bestows another specific name on it, viz., *lanigera;* and, lastly, doctor Godman classes it as a goat, properly retaining the original specific name given it by Mr Ord. The first notice of this animal was given by Lewis and Clarke, and it has since been noticed by major Long, doctor Richardson, &c. The Rocky mountain goat nearly equals in size a common sheep, and has a shaggy appearance, in consequence of the protrusion of the long hair beyond the wool, which is white and soft. Its horns are about five inches long, conical, somewhat curved backwards, and projecting but slightly beyond the wool of the head. In a communication, made by major Long, to the Philadelphia Agricultural Society, he states that it occurs in that part of the Rocky mountains which lie between 48° and 68° north latitude. They are in great numbers about the head waters of the Columbia, and furnish the principal part of the food of the natives of that district. They appear to be more numerous on the western than on the eastern side of the mountains, and are rarely seen in the plains. They are easily obtained by the hunters. The skin is very thick and spongy, and is principally used in the making of moccasons. It is said the fleece of this goat is as fine as that of the goat of Cashmere.

GOATSUCKER (*caprimulgus*). This bird, whose congenera are so well known with us, under the names of *night-hawk*, *whip-poor-will* (q. v), &c., is found on every part of the continent, from Siberia to Africa. Like the owl, it is seldom seen in the daytime, unless disturbed, or in dark and gloomy days, when its eyes are not dazzled by the bright rays of the sun. As night insects are its food, namely, moths, gnats and beetles, it is peculiarly formed to enable it to catch them on the wing. For this purpose, nature has bestowed on it a mouth of great comparative size. When the animal flies, it is continually open, and has no need of being shut, to secure any insect, as it is surrounded on the inner side with a glutinous substance, that prevents their escape. This manner of flying with its mouth open, is the occasion of that whirring noise, which this bird makes while chasing its prey. It arises from the resistance made to the mouth by the air; and is more or less loud, according to the velocity with which the bird moves. When perched, it usually sits on a bare twig, with its head lower than its tail, and, in this attitude, utters a jarring note, whence one of its common names—*night-jar*. Sometimes it utters a weak, plaintive squeak, which it repeats four or five times in succession, which is probably its note of call to its mate. Buffon says, it does not perch like other birds, sitting across a branch, but lengthwise. It is solitary in its habits, and is generally seen alone. Mr White supposes that its foot is useful in taking its prey, as he observed that it frequently puts forth its leg whilst on the wing, and seems to convey something to its mouth. These birds frequent moors and wild heathy tracts abounding in fern; they make no nest, but the female deposits her eggs on the ground; she lays two or three, which are of a dull white, spotted with brown. Montbelliard, who wrote this bird's history for Buffon, states, that it no sooner perceives its retreat to be discovered by an enemy, than it carefully rolls its eggs to a more secure situation. Its common name of goat-sucker, has no other foundation than ignorance and superstition. The colours of this bird, though plain, have a beautiful effect from the elegance of their disposition, consisting of black, white, brown, grey and ferruginous, disposed in the forms of bars, spots and streaks. The male is distinguished from the female by an oval white spot, near the end of the three first quill-feathers. It is about ten inches and a half in length, and weighs about two ounces.

GOBELIN, Giles; a dyer of Paris, in the reign of Francis I. He lived in the *fauxbourg* St Marceau (where his house, and the little stream that flows by it, still bear his name), and is said to have discovered the secret of dyeing that beautiful scarlet colour which is called after him. The *Gobelin tapestries* derived their name from him. This manufacture, which was established by Colbert, in 1667, and placed under the direction of the painter Le Brun, is still one of the most celebrated in Paris. Its productions excel every thing of the kind in Europe. Many celebrated paintings of the old Italian, French and Spanish schools, have, in the most ingenious manner, been transferred to tapestry. The splendour of the colours and the delicacy of the execution are wonderful, and one can hardly conceive how it is possible in tapestry, to imitate so nearly the appearance of oil colours. The establishment is carried on at the expense of government, and the pieces of tapestry are mostly bestowed as presents.

GOBY (*gobius*, Lin.). These fish belong to the *acanthopterygiens* (Cuv.). They are marine, generally of a medium or small size, and mostly with a simple air bladder. They are distinguished by their ventral and thoracic fins being either united in their whole length, or at their bases. The spines of their dorsal fins are flexible; the openings of their ears, with four rays. Like the blenny, they can live for a long time out of water. There is much confusion in their arrangement. It appears to be a numerous genus, which has not been sufficiently elucidated. None of the species is much esteemed as food.

GOD, Truce of. See *Truce.*

GOD SAVE THE KING; the burden and common appellation of a well known English national song. Concerning the author and the composer, opinions differ. It has been asserted that Henry Carey, who lived about the middle of the eighteenth century, was both; but, being ignorant of the rules of composition, employed doctor Thornton, of Bath, or, according to some, Christopher Smith, Handel's clerk, to correct his rough draught, and add the bass.

This story probably gave rise to the assertion, that Handel was the composer. It appears to have been first published, together with the air, in the Gentleman's Magasine, in 1745, when the landing of the young Stuart called forth expressions of loyalty from the adherents of the reigning family. After doctor Arne, the composer of another national song (Rule Britannia), had brought it on the stage, it soon became very popular. Since that time, the harmony of the song has undoubtedly been improved, but the rhythm is the same as originally. According to a notice in the New Monthly Magasine, vol. iv, page 389, there is a copy of this national song, published without date, by Riley and Williams, in which Antony Young, organist in London, is called the author of the air. There is also a story, that this national song, as Burney, the author of the History of Music, maintained, was not made for king George; but that, in the older versions, it ran thus, "God save great James our king.;" and Burney adds, that it was originally written and set to music for the Catholic chapel of James II., and no one durst own or sing it, after the abdication of James, fearing to incur the penalty of treason, so that the song lay dormant sixty years, before it was revived for George II. It is very interesting to observe how this song, of which the words have no great merit, has become dear to the whole English nation, on account of the associations connected with it. The French Marseillaise hymn is of a much higher character, and equally a national favourite.

GOD-FATHER; a man who is sponsor for a child at baptism, who promises to answer for his future conduct, and that he shall follow a life of piety, thus obliging himself to instruct the child, and watch over his conduct. The relation is of high antiquity in the Christian church, and was probably intended to prevent children from being brought up in idolatry, in case the parents died before the children had arrived at years of discretion. In the Catholic church, the number of god-fathers and god-mothers is reduced to two; in the church of England, to three; but formerly the number was not limited.

GOD-MOTHER; a woman who becomes sponsor for a child at its baptism. See *God-Father*.

GODFREY OF BOUILLON, born about the middle of the eleventh century, at Besy, in the Walloon Brabant, near Nivelles, was the son of Eustace II., count of Boulogne and Lens. In 1076, he succeeded his uncle, Godfrey the Hunch-backed, duke of Lower Lorraine, in the duchy of Bouillon. He served faithfully and valiantly, under the emperor Henry IV., in Germany and Italy. That prince was indebted principally to him for the victory over Rodolph, duke of Suabia; and he displayed heroic courage at the siege of Rome. The fame of his exploits procured him, in 1095, his election as one of the principal commanders of the crusade. (See *Crusades*.) Early in the year 1096, he commenced his march, in company with his brothers, Eustace and Baldwin. He forced the emperor Alexis Comnenus to allow him a free passage to the East. He promised the emperor to resign to him the territory which he should conquer from the infidels, on condition of his supplying the army with provisions. But Alexis, dissatisfied that the crusaders plundered the environs of Constantinople, did not adhere to his stipulations. Godfrey took Nice, and, in 1098, Antioch. In this last city, the crusaders were, not long after, themselves besieged. Being destitute of provisions, they were reduced to extreme necessity. While they were in this state, a Provençal priest, pretending that he had been favoured with a revelation, instructed them where to find the holy lance, which was accordingly discovered. This circumstance inspired the crusaders with such courage, that they repulsed the Turks, and gained a splendid victory. In the following year, July 19, Godfrey took Jesusalem itself, after a five weeks' siege. The infidels were indiscriminately massacred, notwithstanding the endeavours of Godfrey, whose mildness was equal to his bravery, to put a stop to the slaughter. Eight days after the capture of Jerusalem, the leaders of the army elected him king of the city and the territory; but the pious Godfrey would not wear a crown in the place where Christ was crowned with thorns; and he declined the kingly title, contenting himself with that of *duke* and *guardian of the holy sepulchre*. The sultan of Egypt having learned, that of the 300,000 Christians, who had assisted in the capture of Antioch, only 20,000 now survived, raised an army of 400,000 men, for the purpose of expelling them from their new conquests. Godfrey gave him battle in the plain of Ascalon, on which occasion 100,000 men were left dead upon the field. This victory placed him in possession of the whole Holy Land, two or three places excepted. Godfrey now turned his attention to the organisation of his newly established government. He appointed a patriarch, founded two cathedral chapters, and built a monastery in the valley of Jehoshaphat. He subsequently gave his new subjects a code of laws, but soon after died, July 18, 1100, just a year after the capture of Jerusalem. He was interred on mount Calvary, near the sepulchre of the Saviour. Tasso's beautiful epic poem sets the character of this great prince and general, whom history has handed down to us as a pattern of piety, bravery, and all princely virtues, in a just light.

GODFREY OF STRASBURG, one of the most distinguished of the old German poets, was probably born in Strasburg, but at any rate lived there. He was not, like most of the *Minnesingers* (minstrels) of his age, a noble. He lived in the most flourishing period of the German chivalric poetry, at the end of the twelfth century and beginning of the thirteenth. Besides many lays in the collection of Manesse, we are indebted to him for the great chivalric poem, *Tristan und Isolde*, derived from the legends of the round table, from a Welsh original, but possessing as much originality of character as any other German classical work. For grace, loveliness, and vivacity of description, richness of colouring, and melody of versification, the work of Godfrey stands alone in old German literature, and a soft and almost elegiac strain of sentiment pervades his poetry. The best edition is that of F. H. von der Hagen (with the continuations of Ulric of Turheim, and Henry of Friburg, &c.), at Breslau, 1823, in two volumes.

GODFREY, Thomas, the inventor of the quadrant commonly called *Hadley's*, was born, and pursued the trade of a glasier, in Philadelphia. Having accidentally met with a mathematical book, he became so delighted with the study, that, by his own unaided industry, he soon made himself master of the treatise, and of every other English work of the kind that he could procure, and afterwards acquired a tolerable proficiency in Latin, in order to be able to peruse the mathematical works in that language. Anxious to read sir Isaac Newton's *Principia*, he went to James Logan, secretary of the commonwealth, who then enjoyed a great reputation as a mathematician, and requested him to lend him the work. Mr Logan had never seen or heard of Godfrey before, but, after some conversation, made him welcome to that or any other book he possessed. Not long afterwards (in 1730), Godfrey communicated to Logan the improvement he had made in Davis's quadrant, by which Mr Logan was so much struck, that, in May 1732, he addressed a letter, on the subject, to doctor

Edmund Halley, in England, in which he described fully the construction and uses of Godfrey's instrument. In the same year, Godfrey himself also prepared an account of his invention, addressed to the royal society of London; but it was not then transmitted, from the expectation which he entertained of the effect of the letter to Halley. No notice, however, was taken of it by that *savant*, and, after an interval of a year and a half, Logan resolved to have the matter submitted immediately to the royal society. For this purpose, he transmitted a copy of the letter, together with the paper of Godfrey, to Mr Peter Collinson, an eminent botanist and member of the society, engaging him to lay them before that body. This was accordingly done; but Mr Hadley, the vice-president of the society, had already presented them a paper, dated May 13, 1731, containing a full description and *rationale* of a reflecting quadrant of the same character, which he claimed as his invention, and the paper was inserted in the volume of the Philosophical Transactions for that year. Thus there were two claimants to the invention of the instrument; but it was decided that they both were entitled to the honour of it, and the society sent to Godfrey, as a reward, household furniture to the value of £200, instead of money, on account of his habits of intemperance. The instrument has gone by the name of *Hadley's*, but it should rather be called *Godfrey's*, for the American may certainly be deemed its first discoverer, although the idea of it may have also been original in the mind of Hadley. Time enough, however, intervened between the period of Godfrey's discovery and that of the presentation of Hadley's paper to the royal society, for the latter to have received some account of the instrument. Mr Godfrey died in December, 1749. Doctor Franklin says of him, "Among the first members of our junto was Thomas Godfrey, a self-taught mathematician, great in his way, and afterwards inventor of what is now called *Hadley's quadrant*. But he knew little out of his way, and was not a pleasing companion, as, like most great mathematicians I have met with, he expected universal precision in every thing said, and was forever denying or distinguishing upon trifles, to the disturbance of all conversation. I continued to board with Godfrey, who lived in part of my house, with his wife and children, and had one side of the shop for his glasier's business, though he worked little, being always absorbed in mathematics."

GODFREY, Thomas, junior, the son of the foregoing, and a poet of some merit, was born in Philadelphia, in 1736. Disliking the drudgery of a mechanical occupation, he abandoned the trade of his father, as well as the art of watchmaking, to which he had been apprenticed, and obtained a lieutenancy in the provincial troops raised, in 1758, for an expedition against fort Du Quesne. This station he retained until the forces were disbanded. He then established himself as a factor in North Carolina, where he died, three years afterwards, August 3, 1763, in the twenty-seventh year of his age, in consequence of violent exercise on a very warm day. Little attention was paid to Mr Godfrey's education, but he was ever ardent in the pursuit of knowledge, and became exceedingly well versed in the works of the English poets. His own poetical talents were early manifested by his publications in the American Magazine, printed in Philadelphia. His principal poem is the Court of Fancy; and, among his minor pieces, his Epistle from Fort Henry may be cited with eulogy. Some of his pastorals and elegies possess also a degree of beauty. But he is principally distinguished as the author of the first American drama. This production is called *The Prince of Parthia*, a tragedy, which, with various defects, has some redeeming merits. After his death, his poems were collected, and, in 1765, were published in Philadelphia, preceded by a critical review of them, by doctor Smith, and a biography of the author, by his friend Nathaniel Evans.

GODFREY, Sir Edmondbury; a magistrate who was active in the discovery of the popish plot. He was soon after found dead, pierced with his own sword. His death was imputed to the resentment of the papists, and therefore his remains were buried with great pomp. He died October 17, 1678.

GODIVA. See *Coventry*.

GODMAN, Doctor John D., an eminent American lecturer and writer, was born at Annapolis, in Maryland, and, having lost his parents at an early age, was bound apprentice to a printer in Baltimore. Disliking his business, he abandoned it after a few years, and, in the autumn of 1813, entered as a sailor boy, on board the flotilla stationed in Chesapeake bay. At the end of the war, when about fifteen, he commenced the study of medicine. He then removed to Baltimore, where he prosecuted his studies with such success, in the office of an eminent physician, that he was chosen to fill the place of his preceptor, who was professor of anatomy in the university of Maryland, whilst the latter was disabled by sickness from attending to his duties. His lectures gave so much pleasure to those who heard him, that strong symptoms of regret were manifested when he was obliged to relinquish the station. He afterwards was induced to remove to Cincinnati, on the Ohio, by an offer of the chair of anatomy, in a medical school which was about to be established in that town. But as the school did not succeed, he returned, after a year, and settled in Philadelphia, as a physician and private teacher of anatomy, and, for some time, assisted in editing doctor Chapman's Medical Journal. It was about this time that he published his popular Natural History of American Quadrupeds, in three volumes octavo. Having been solicited to accept the professorship of anatomy in Rutgers' Medical College, at New York, he removed thither; and at last his affairs assumed a prosperous aspect. He acquired an extensive practice as a surgeon, and the college flourished; but in the midst of his second course of lectures, a severe cold settled on his lungs, accompanied by a copious hemorrhage, which obliged him to relinquish his pursuits. After having visited Santa Cruz, without permanent benefit to his health, he removed, in 1829, to Philadelphia, where he died, April 17, 1830, in the thirty-second year of his age. Though doctor Godman's early education had been greatly neglected, yet, by his indefatigable industry, he made himself master of Latin, French and German, besides acquiring a considerable knowledge of Greek, Italian and Spanish. His learning, as a physician and naturalist, was very extensive, and there were few subjects of general literature in which he was not well versed. Among other pursuits, to which he turned his attention, was the study of ancient coins, of which he acquired a critical knowledge. Natural history, however, was his favourite pursuit, and it is as a naturalist that he has left behind him the greatest reputation. His American Natural History, and his Rambles of a Naturalist, are works of high merit.

GODOLPHIN, Sidney, earl of Godolphin, began a career of politics at an early age, under Charles II., and was one of those who voted for the exclusion of the duke of York from the throne in 1680, notwithstanding which he continued in office after the accession of James II. On the flight of that monarch, and while the country was yet in suspense, Godolphin voted for a regency, yet was, after the settlement of the crown on William and Mary, made a treasury

commissioner. During the reign of Anne, he was appointed lord high treasurer of England, and, in 1704, became a knight companion of the garter. In 1706 he was made earl of Godolphin, and, four years afterwards, was obliged to retire from office. His death took place in 1712.

GODWIN, Mary, better known by her maiden name of *Wolstonecraft*, a writer of considerable, but eccentric genius, was born in or near London, in 1759. Her parents, whose circumstances were humble, afterwards removed to a farm near Beverley, in Yorkshire, where she attended a day school. In her twenty-fourth year, she set up a school, in conjunction with her sisters, with whom she removed to Newington-Green, and wrote a pamphlet, entitled Thoughts on the Education of Daughters. She was subsequently employed for some time, as governess in the family of an Irish nobleman; after which she produced Mary, a Fiction; Original Letters from Real Life, and the Female Reader. She was one of the first to answer Burke's Reflections on the French Revolution, which answer was followed by her celebrated Vindication of the Rights of Women. The eccentricity of her theory was equalled by the singularity of her practice, which led her first into the indulgence of a romantic, but fruitless attachment to Mr Fuseli, the painter, although a married man, and to one more intimate with an American, of the name of Imlay, whose desertion caused her to attempt suicide. This ardent passion, like the former, was, however, overcome by a succeeding one, the object of which was Mr Godwin, author of Political Justice, &c. As the bonds of wedlock were deemed a species of slavery in her theory, it was only to legitimatise the forthcoming fruits of the union, that a marriage between the parties took place. She died in childbed, after being delivered of a daughter, in August, 1797. Mr Godwin published her life. The history of this woman, of strong but undisciplined powers and passions, does little to advance the credit of the theory on which she acted. Besides the works above mentioned, Mrs Godwin published a Moral and Historical View of the French Revolution, and Letters from Norway.

GOECKINGK, Leopold Frederic Gunther, von, was born at Gruningen, in the territory of Halberstadt, in 1748. He studied law at the university in Halle, and there, in conjunction with his friend and countryman G. A. Burger, tried his powers in the art of poetry. He afterwards filled several important stations in the Prussian service. He wrote songs, epigrams, and epistles, the last of which, especially, were received with universal approbation. Besides many other poems, which evince deep feeling, and a great command of language, his Songs of Two Lovers, (*Lieder zweier Liebenden*), first published in 1777, and again in 1779, procured him the greatest reputation. His poems were published at Frankfort (1780—1782), in three volumes. A new edition, in four volumes (enlarged with satirical essays), appeared in 1818. His prose writings were published at that place, in one volume, in 1784. Goeckingk died February 18, 1828.

GOERTZ, George Henry, baron, of an ancient family, privy councillor to duke Christian Augustus of Holstein, joined Charles XII. at Stralsund, on his return from Turkey. His activity and intelligence induced Charles to take him into his service, and he was soon placed at the head of affairs. The desperate state of Sweden seemed only to render his projects for its rescue more vast, and his activity more unabating. (See *Charles XII.*) His policy grasped at all possible resources, and he endeavoured, by the active prosecution of war, to obtain favourable conditions of peace. The impoverished condition of the country left the government without resources, and he endeavoured, to create a fictitious capital, by giving to a copper currency the nominal value of silver, and pledging the faith of the government for its redemption. His negotiations with Russia had almost reached a happy termination, when Charles, encouraged by new hopes, invaded Norway. But scarcely had Charles fallen before Frederickshall (Dec. 11, 1718), when the foreign minister fell a sacrifice to the hatred of the nobility and of the successor to the throne. He was arrested, and accused of having prejudiced the king against the senate, and all his colleagues; and of having induced him to undertake ruinous enterprises, especially the unfortunate expedition into Norway; of having put bad coin into circulation, and of having mismanaged the sums intrusted to him. He was condemned and beheaded, without a hearing, February 28, 1719. Goertz composed his own epitaph; namely, *Mors regis, fides in regem, est mors mea* (The king's death, and my fidelity towards the king, is the cause of my death.) He died with firmness. He was a statesman of distinguished talent, but unscrupulous in the choice of means for effecting his ends. See Voltaire's *Life of Charles XII.*

GOETHE, John Wolfgang von; born August 28, 1749, at Frankfort on the Maine, where his father, a doctor of law and imperial counsellor, was highly respected. Goethe, the greatest modern poet of Germany, has described his own life, in which, with a master hand, he unfolds the secret springs of the human character, and gives us the key to the most important periods of his life, and consequently to the productions by which they were respectively distinguished. Goethe's father was an admirer of the fine arts, and surrounded by pictures, which early developed, in the son, the nice discrimination and the active observation for which he is so remarkable. The seven years' war broke out when Goethe was eight years old, and count de Thorane, *lieutenant du roi* of the French army in Germany, was quartered in the house of his father. The count, who was a man of taste, soon gave employment to the artists of Frankfort. Young Goethe was often present at the conversations of the count with the artists respecting the plans of pictures, the way of executing them, &c. These conversations had a great influence upon the mind of the young poet. The count was fond of him, and allowed him to take part freely in the conversations; and some pictures, relating to the story of Joseph, were actually painted from his suggestions. At the same time, he learned the French language practically; and a French company, then performing at Frankfort, awakened his taste for dramatic performances. Drawing, music, natural science, the elements of jurisprudence, and the languages, occupied him alternately. To assist his progress in the languages, he formed the plan of a novel, in which seven brothers and sisters correspond with each other in different languages. The youngest of these fictitious persons used Jewish-German, which led Goethe to study a little Hebrew, in which he never, indeed, became a great adept, but which, nevertheless, had an influence on him in his childhood, and may have had a tendency to encourage his inclination to Oriental poetry in his later years. By his study of Hebrew, Goethe became more intimately acquainted with the Old Testament, and the History of Joseph was his first poetical work. His love for spectacles attracted his attention to a puppet show, and in the beginning of his *Wilhelm Meister* he undoubtedly took from his own life the motives of Meister's love for puppet shows. Goethe very early fell in love, and, as often happens in the case of boys of an ardent temperament, with a girl much older than himself,

who, of course, treated him like a child. Her name was Margaret, the name which Goethe afterwards gave to the mistress of Faust. Though he was then a mere boy, his passion was so violent as to deprive him of sleep and appetite, so that he fell seriously sick. With returning health, he acquired a firmer character, and applied himself with more zeal to his preparation for the university. He went to Leipsic, where Gottsched still lived; but Ernesti and Gellert chiefly attracted his attention. The young poet did not follow any regular course of studies. His mind was always active, but the subjects of his study were regulated by his feelings. German poetry was then in a critical state. It was generally felt, that the old bombastic manner must be shaken off, before poetry could make any important progress. Precision and conciseness were then the great *desiderata*, and Goethe soon learned to feel their importance. The English poets were now imitated, instead of the French, who had previously been servilely copied. He began at this period, what he practised throughout his life, to imbody in a poem, or in a poetical form, whatever delighted or grieved, pleased or displeased him; in a word, whatever occupied his mind intensely; and no one, perhaps, was ever more in need of such an exercise, as his nature continually hurried him from one extreme to another. Several dramatic pieces were projected by him at this period, when he first realised the immense difference between the form and the substance of religion, law, morals, in short, of all the great subjects which most deeply affect the wellbeing of man. The fine arts were not neglected, and he zealously studied the first authors on this subject. He always had a taste for drawing, and, while at Leipsic, also attempted engraving. Improper diet and other causes now brought on a disease, from which he had hardly recovered, when he left Leipsic, in 1768. His health was much impaired, and, on his return home, he was affectionately nursed by a lady named von Klettenberg, and his conversations and correspondence with her were the origin of *Bekenntnisse einer schönen Seele* in his *Meister*. At the same time, this connexion led him to the study of mystico-alchemical books (the traces of which are so apparent in Faust), and also to chemistry. He was also led, by the reading of several religious works, to construct for himself a strange theological system, of which New Platonism was the groundwork. He subsequently went to the university of Strasburg, to pursue the study of law, according to the wish of his father, but gave, in fact, more attention to the study of chemistry and anatomy than to that of law. At Strasburg, he became acquainted with Herder—a decisive circumstance in his life. Herder made him more acquainted with the Italian school of the fine arts, and inspired his mind with views of poetry more congenial to his character than any which he had hitherto conceived. While here, in the immediate presence of the renowned minister of Strasburg, Goethe wrote a short treatise on Gothic architecture. The treatise contains some views which he afterwards abandoned. Here, on French ground, and so near to the confines of the French language, he shook off all his predisposition for the French character. In 1771, he took the degree of doctor of jurisprudence, and wrote a dissertation on a legal subject. He then went to Wetzlar, where he found, in his own love for a betrothed lady, and in the fate of a young man named Jerusalem, the subjects for his *Werther*. The attention of the public was first attracted to him by his *Götz* (published 1773). *Werther* appeared in 1774. November 7, 1775, he went to Weimar, on the invitation of the duke of Saxe Weimar, who had just begun his reign. In 1776, he was made privy councillor of legation, with a seat and vote in the privy-council. He made a journey to Switzerland in the same year, with the prince. In 1782, he was made president of the chamber, and ennobled. In 1786, he made a journey to Italy, where he remained two years, visited Sicily, and remained a long time in Rome. In 1792, he followed his prince during the campaign in Champagne. He was afterwards created minister; received, in 1807, the order of Alexander-Newsky from Alexander of Russia, and the grand cross of the legion of honour from Napoleon. He died at Weimar on the 22d march, 1832.

If we survey the variety of the productions of this great man, not only in all branches of poetry, but also in natural science, we cannot help admiring the activity and the versatility of his genius—as *Vielseitigkeit*, as the German phrase is. His genius appears most wonderful, if we threw a glance at what German literature was when he found it, and what it is now that he has left it, and how it has been affected by him. Goethe was born at a period when the modern German literature was far from having acquired independence and consistency; and, in the different periods of his life, it is easy to discover the influence at one time of French literature, at another of classic literature, &c.; but these influences, though sufficient to destroy the vigour and energy of many a genius, rather served to develope his powers more fully. It cannot be denied, however, that even he sometimes was led astray, as, for instance, in his polished and cold *Eugenie*. But in what branch has Goethe most excelled? Is it the epic? He enriched German literature with some of the most popular epic productions; but his epic descriptions cannot rival the best descriptive compositions of English literature (which may be partly accounted for from the character of the two languages); nor are the conceptions of his epics of the highest character. Is it the drama? He produced some beautiful dramas, and his Iphigenia will always be considered as a masterpiece; but, generally speaking, his dramas do not give us sketches of great, important, or interesting characters, nor the picture of a great action—the two chief points of dramatic poetry; and he stands, in this respect, very far below Shakspeare. Nay, he does not even do justice to historical characters, as his Egmont shows. Is it didactic poetry? He wrote several didactic poems, but he cannot be said to have excelled in this branch. Is it the novel? He presented German literature with some novels, which will always rank among the best, but their excellence, of which we shall presently speak, is not in the plot, nor particularly in the characters described. In short, what is the prominent feature of Goethe's excellence? We think Goethe must be called, pre-eminently, the *poet of philosophy*. It is the philosophy of life and of individual character, pervading his works, which places them among the first ever produced. Hence he has been able to devote his powers to all forms of poetry: for the drama was not to him what it was to Shakspeare, nor the epic what it was to Ariosto. We do not say that his conceptions are in no degree affected by the dress in which they are clothed, but that the form of poetic composition, which he at any time adopts, remains with him more a matter of form than with those who are pre-eminent in any particular branch. Hence his greatest production is his Faust, emphatically a philosophical poem, which will long remain unrivalled; for it is the best of Goethe's productions in a department for which he seems to have been born. His beautiful songs and shorter poems, elegies, distiche, &c., have the same peculiar character; for though many or most of them cannot be called pre-eminently philosophical, yet they are all tinged with

e profound reflections of his philosophical mind, and ntinually remind us of the deep wells, from which r griefs and joys, fears and hopes, spring. The cumstance, that there is in Germany no national e, that no grand ideas affect the whole mass with common impulse, that there are few historical re-llections which are sources of a common pride to e whole nation—all this had a great influence on oethe. It was one of the reasons of his universality, d also the reason that his genius directed itself to e delineation of the character of the individual man, nsidered apart from the influences which act so ongly upon the mind in communities more strongly bued with a common spirit. In this respect, he embles not a little the poets and wise men of the st, who, under a despotism which crushes freedom action, concentrate their thoughts on the inward an. Goethe, we repeat it, is the most universal et; thoroughly modern in some of his inimitable ngs, in which he gives vent to the tenderest emo-ns of the heart with a sincerity at times almost ildlike; whilst, in other productions, he exhibits e spirit of ancient literature to a degree which obably no modern poet of any nation has reached, the resemblance is not merely in the form, but in e very conception of the ideas. The service which oethe has done to the German language is immense; has elevated it, and used it with that ease and edom, with which genius always handles its ma-rial. The clearness and simplicity of his prose yle make it the best model for the imitation of his untrymen. It may, perhaps, be said, with truth, at the deficiency of Goethe's productions in great tional ideas, such as we find in the poets of her countries, was partly owing to his having ssed a great portion of his life at the court of a tty prince. But still his whole organisation fitted m to be the observer of individual and of social life the world around him. His mind had no historical st, and neither the progress of mankind in different ages of society, nor the great characters who have ppeared as representatives of these stages, seem to ve excited a powerful interest in him. So, too, is own age seems to have passed by him without exciting in him that interest for either of the great ntending parties, which is so strong in minds of a fferent mould.

GOEZ, Joseph Francis, baron of, a celebrated inter, was born Feb. 28, 1754, at Hermannstadt, Transylvania, where his father was lieutenant-olonel of a garrison. He was employed in Vienna the department of justice. His leisure was devoted the study of the arts. In 1784, he published his ries of 160 etchings illustrative of the passions. the same time appeared his *Exercises d'Imagi-ation de différens Caractères et Formes humaines*—eries of prints, representing chiefly rural scenes lustrative of character.. In 1787, Goes received an vitation from the empress Catharine II., to accom-ny Forster, as draughtsman, on a voyage round e world; but the project was abandoned on account the war with Turkey. In January, 1791, he was dered to leave Munich, on suspicion of being con-ected with the order of the illuminati. He retired Ratisbon, where he died in 1815. The works of is artist are generally esteemed.

GOFFE, William, one of the regicides in the e of the Commonwealth and a major-general er Cromwell, left England before the restoration, company with general Whalley, and arrived at ston in America, June, 1660. They were received ndly by governor Endicott, and resided at Cam-idge till February, 1661, when the intelligence vised them that they were not included in the t of indemnity. They then removed to New Haven, and were concealed by the principal inhabitants. They afterwards resided for some time on West Rock, and in the neighbouring towns. But in 1664, they removed to Hadley, Massachusetts, and remained concealed fifteen or sixteen years in the house of the reverend Mr Russell. When the Indians attacked the town, in 1675, and threw the inhabitants, who were assembled for public worship, into the utmost confusion, Goffe, who was entirely unknown to them, white with age, of a commanding aspect, and clothed in an unusual dress, suddenly presented himself among them, and, encouraging them by his exhortations, placed himself at their head, and by his military skill secured them the victory. The battle had scarcely terminated, when he disappeared; and the people, alike ignorant of the place whence he came, and of his retreat, regarded him as an angel sent for their deliverance. He died at Hadley, it is supposed, about the year 1679.

GOG and MAGOG. Ezekiel predicts the destruction of Gog and Magog (c. xxxviii and xxxix), by the Jews, and mention is also made of them in Revelation (c. xx). Interpreters have given very different explanations of these terms; but they generally understand them to be symbolical expressions for the heathen nations of Asia, or more particularly for the Tartars or Mongols. Magog is mentioned as the second son of Japheth in Genesis (c. x. 2.).

GOGGLES, in surgery, instruments used for the cure of squinting or that distortion of the eyes which occasions this disorder. They are short conical tubes, composed of ivory stained black, with a thin plate of the same ivory fixed in the tubes; through the centre of the plates is a small circular hole, to transmit the rays of light.

GOITRE. See *Wen*.

GOLCONDA (now called *Hyderabad*); a province of Hindostan, in the Deccan, bounded N. by Berar, E. by the Circars, S. by the Mysore and the Carnatic, and W. by Dowlatabad and Bejapour. It is situated chiefly between lat. 16° and 19° N. Its ancient name was *Tellingana*, and it was formerly a portion of a very extensive empire, which comprised all the peninsula from cape Comorin to the northern extremity of Orissa. Much of the soil is very fertile, and produces great crops of cotton, rice, and other grain; also vines in abundance. It has been chiefly celebrated for its diamond mines, the principal of which are in the neighbourhood of Raolconda and Culloor. 6000 men were constantly employed in these mines, but they have ceased to be important, and now hardly pay the expense of working. This country is subject to the Nisam. Having long been under a Mohammedan government, a considerable portion of the inhabitants are of that religion; the majority, however, are Hindoos: but the people are by no means equal to those of the British provinces. Hyderabad is the chief town.

GOLCONDA (called also *Mankul*); a fortress of Hindostan, formerly the capital of Golconda, and the residence of the kings; five miles W. N. W. of Hyderabad. This fortress, for extent, might be called a city, in the middle of which rises a hill like a sugar loaf. It is esteemed by the natives impregnable, but is extremely hot and unhealthy. It is now considered as the citadel of Hyderabad, and the repository of the wealth of the Nisam.

GOLD is the only metal which has a yellow colour—a character by which it is at once distinguished from all other simple metallic bodies. It is the most malleable of the metals. It is exceedingly soft and flexible, but its tenacity is sufficiently great to sustain, in a wire one-tenth of an inch in diameter, 500 pounds weight without breaking. Its specific

gravity is 19·3. In hardness it is above lead and tin, but inferior to iron, copper, platina, and silver. Its lustre does not equal that of steel, platina, or silver, but it surpasses the other metals in this respect. It may be exposed for any length of time to the atmosphere, without suffering the least change. It is also equally unalterable in the common fire; but on being exposed to powerful burning mirrors, or to the heat of the oxy-hydrogen blowpipe, it melts, and even rises in vapour. Gold is not oxidised or dissolved by any of the pure acids. Its only solvents are chlorine and nitro-muriatic acid; and, according to Sir H. Davy, the chlorine is the agent in both cases, since the nitro-muriatic acid does not dissolve gold, except when it gives rise to the formation of chlorine. It is to be inferred, therefore, that the chlorine unites directly with the gold, and that the compound formed is a chloride of gold. There is no inconvenience, however, in regarding it as a muriate; since reagents act upon it as if it were such. The gold is precipitated from its solvent by a great number of substances. Lime and magnesia precipitate it in the form of a yellowish powder. Alkalies exhibit the same appearance; but an excess of alkali redissolves the precipitate. The precipitate of gold obtained by a fixed alkali, appears to be a true oxide, and is soluble in the sulphuric, nitric and muriatic acids; from which, however, it separates by standing. Gallic acid precipitates gold of a reddish colour, and, very soluble in nitric acid, to which it communicates a fine blue colour. Ammonia precipitates the solution of gold much more readily then fixed alkalies. This precipitate, which is of a yellowish brown colour, possesses the property of detonating with a very considerable noise, when greatly heated. It is known by the name of *fulminating gold*. Most metallic substances precipitate gold from its solution in nitro-muriatic acid. Lead, iron and, silver precipitate it of a deep and dull purple colour; copper and iron throw it down in its metallic state. A plate of tin, immersed in a solution of gold, affords a purple powder, called the *purple powder of Cassius*, which is used to paint in enamel. Ether, naphtha, and essential oils take gold from its solvent, and form liquors, which have been called *potable gold*. The gold which is precipitated on the evaporation of these fluids, or by the addition of sulphate of iron to the solution of gold, is of the utmost purity.

The principal use of gold, as is well known, is in coinage. It has been with mankind, from time immemorial, the representative sign of every species of property. Even before the art of coining was invented, it passed for money in the condition in which it was found in the earth; and in this form it still enjoys a currency in many parts of Africa. It is rarely employed in a state of perfect purity, but is almost universally alloyed with copper, or with silver, in order to increase its hardness. The alloy of gold and silver is found already formed in nature, and is that most generally known. It is distinguishable from that of copper, by possessing a paler yellow than pure gold, while the copper alloy has a colour bordering upon reddish yellow. A variety of means are employed to judge of the quality of alloys, supposed to consist in part, or principally, of gold, without resorting to a regular analysis. The most common of these consists in the use of the *touchstone* (for the nature of this substance, see *Quartz*). A mark is made upon the stone with the alloy, upon which a drop of nitric acid is placed by means of a feather; if the metallic streak disappears, the alloy is destitute of gold; if visible only in little points, at distant intervals, it indicates a small proportion of this metal; whereas, if the continuity and density of the mark remain unbroken, it evinces that the piece on trial is pure gold. This test is obviously founded upon the property possessed by gold of being insoluble in nitric acid, while silver, copper, and their alloys, with zinc, are instantly taken up by this solvent. It requires, however, much practice to determine, with any considerable degree of precision, the amount of gold present in alloys by means of this test. The trial of specific gravity is another mode of ascertaining the proportion of gold in alloys; and it was in this manner that Archimedes detected the amount of silver in a crown which was to have been made of pure gold for Hiero, king of Syracuse. But this method only gives approximations, since certain alloys are more, and others less dense, than the mean density of the metals which compose them. In the coining of gold, where it is necessary to be assured of the purity of the metal, the trials just mentioned are never adopted. If the gold to be made use of appears to contain copper (which is inferred from a reddish tinge), it is made to undergo cupellation with a given quantity of pure lead; by which means the copper quits its union with the gold, and unites with the lead, leaving the former by itself, and in this way, the proportion of gold in the alloy is ascertained. If silver is presumed to be the alloying metal, the operation consists in melting the alloy with three times its weight of silver, rolling the compound into thin sheets, forming these into coils, and plunging them into nitric acid, slightly diluted: the silver is promptly dissolved, while the gold remains unaffected. This operation is called *quartation*, and the separation of the silver by nitric acid, *parting*.

The art of gilding metals (see *Gilding*) depends upon the double property which mercury possesses of amalgamating with gold, and of becoming volatile by heat, and thus quitting the gold, which adheres strongly to the metal upon which the mercurial amalgam has been spread. The composition of the amalgam generally used, is eight parts of mercury to one of gold. The malleability and extreme divisibility of gold are the foundation of the art of *gold-beating;* and these two properties are so remarkable in this art, that natural philosophers are in the habit of quoting the results it furnishes, as examples of the divisibility of matter. Boyle has observed that a grain of gold, reduced to leaves, will cover a surface of fifty square inches; that each one of these square inches may be divided into 46,656 other little squares, and that, of course, the entire amount of surface derived from one grain of gold is capable of being divided into 2,322,800 parts, each of which is visible to the naked eye. In consequence of the wonderful extension which the gold-beater is enabled to give to this precious metal, it is employed for ornamental purposes to an extent which, from its comparative scarcity, would otherwise be impossible. Thus it is estimated, that an equestrian statue, of the natural size, may be gilded with a piece of gold not exceeding in value ten shillings. The gilding of the dome of the *Hôtel des Invalids* at Paris, cost above £4,[illegible].

The following is a short account of the improved art of *gold-beating*. The gold used is as pure as possible, and the operation is commenced with masses weighing about two ounces. These are beaten into plates six or eight inches long, by three fourths of an inch wide. They are then passed between steel rollers, till they become long ribands as thin as paper. Each one of these is now cut into 150 pieces, each of which is forged on an anvil, till it is about an inch square, after which they are well annealed. Each of the squares in this state weighs 6,¼ grs., and in thickness is equal to $\frac{1}{1000}$ of an inch. The 150 plates of gold, thus produced from one mass, are interlaid with pieces of very fine vellum about four inches square, and about twenty vel-

ves are placed on the outsides; the whole is then into a case of parchment, over which is drawn ther similar case, so that the packet is kept close l tight on all sides. It is now laid on a smooth ck of marble, from 200 to 600 pounds in weight, l the workman begins the beating with a round- ed hammer, weighing sixteen pounds; the packet turned, occasionally, upside down, and beaten with ong but not acute strokes, till the gold is extended arly to an equality with the vellum leaves. The cket is then taken to pieces, and each leaf of gold divided into four with a steel knife. The 600 eces thus produced are interlaid with pieces of ani- al membrane, from the intestines of the ox, of the me dimension and in the same manner as the ellum. The beating is continued, but with a lighter ammer, called the *shoddering hammer*, and weigh- ng about twelve pounds, till the gold is brought to e same dimensions as the interposed membrane. It now again divided into four, by means of a piece cane, cut to an edge, the leaves being by this time light, that any accidental moisture, condensing on iron blade, would cause them to adhere to it. The 00 leaves hence resulting are parted into three ackets, with interposed membrane as before, and eaten with the *finishing* or *gold* hammer, weighing out ten pounds, till they acquire an extent equal the former. The packets are now taken to pieces, nd the gold leaves, by means of a cane instrument nd the breath, are laid flat on a cushion of leather, nd cut, one by one, to an even square, by a cane ame; they are lastly laid in books of twenty-five eaves each, the paper of which is previously smooth- d and rubbed with red bole, to prevent them from dhering. *Gold wire*, as it is called, is in fact only ilver wire gilt, and is prepared in the following anner. A solid cylinder of fine silver, weighing bout twenty pounds, is covered with thick leaves of old, which are made to adhere inseparably to it, by eans of the burnisher: successive laminæ are thus pplied, till the quantity of gold amounts to 100 rains for every pound troy of silver. This gilt ilver rod is then drawn successively through holes ade in a strong steel plate, till it is reduced to the ze of a thick quill, care being taken to anneal it ccurately after each operation. The succeeding rocess is similar to the former, except that a mixed metal, somewhat softer than steel, is employed for the drawing plates, in order to prevent the gilding from being stripped off; and no further annealing is requisite after, if it is brought to be as slender as a crow-quill. When the wire is spun as thin as is ne- cessary, it is wound on a hollow copper bobbin, and carefully annealed by a very gentle heat: finally, it is passed through a flatting-mill, and the process is complete. According to doctor Halley, six feet in length of the finest gilt-wire, before flatting, will counterpoise no more than a grain; and as the gold is not quite $\frac{1}{24}$ of the whole, a single grain of gold, thus extended, will be 345·6 feet long, and only the millionth part of an inch in thickness.

The oxide of gold is used in staining porcelain, to which it communicates a colour differing but slightly from copper-red. For this purpose, it is precipitated from its muriatic solution by sulphate of iron, and is fixed by the oxide of bismuth, in the proportion of one-twelfth to one-nineteenth. Such are the princi- pal uses of gold and its oxide; for its medicinal vir- tues are of too doubtful a character to deserve men- tion. We shall now pass to the description of the ores of gold, their mode of occurring in nature, and the means made use of for obtaining this metal from them.

Native gold is found crystallised in the forms of the octahedron, the cube, and the dodecahedron, of which the cube is considered as the primary form. It also occurs in filiform, capillary, and arborescent shapes; as, likewise, in leaves or membranes, and rolled masses. It offers no indications of internal structure, but, on being separated by mechanical violence, ex- hibits a hackly fracture. Its colour comprises vari- ous shades of gold yellow. Its specific gravity varies from 14·8 to 19·2. It is commonly alloyed by cop- per, silver, and iron, in very small proportion. Na- tive gold exists in veins in primitive mountains, but not in the greatest quantity in those which are es- teemed to be of the oldest formation. Its immediate gangue is generally quarts; and it is associated with the ores of silver, sulphuret of iron, lead, nickel, cop- per, &c. It is often so minutely disseminated, that its presence is detected only by pounding and wash- ing the rocks in which it exists. But native gold is more often found in the sand of rivers, in valleys and plains, into which it has been carried, from its origi- nal repositories, in the shape of larger or smaller, generally flat pebbles, mingled with quarts. The mountain of Vorospatak, near Abrudbanya in Tran- sylvania, is a remarkable instance of a rock impreg- nated throughout with a small portion of gold. It has been worked to a considerable extent since the time of the Romans; it consists of greywacke and porphyry. In a similar rock it is found in many places along the chain of the Alps, and in the Schlangenberg in Siberia. But the greatest quantity of gold is obtained from the alluvial soils of several islands in the Indian ocean, from the southern, mid- dle, and western parts of Africa, and from Brasil, Mexico, and Peru. The sands of several European rivers, also, as the Danube, the Rhine, and the Rhone, afford small quantities of gold; and, of late years, it has been discovered in similar situations in the United States of America, in the Carolinas and Georgia. The mines of North Carolina are chiefly wrought in the three ranges of counties between Frederic and Charlotte, which lie in a direction about N.E. and S.W., corresponding with the general line of the coast. The most lucrative diggings have been made in the counties of Mecklenburg and Cabarras; in the latter, a single lump of gold was found weigh- ing twenty-eight pounds. The gold is not wholly ob- tained from alluvion in these districts, but is occa- sionally pursued in the quarts rock, which abounds with cavities, often partly filled with decomposed iron pyrites. Humboldt estimates the average product of gold per year of South America and New Spain, at between two and three millions; while Europe fur- nishes annually about one-twelfth this amount, the greater part of which comes from the mines of Hun- gary. The largest amount of gold from Georgia and Carolina, coined in any one year, has been about £70,000. The metallurgic treatment of the ores of gold, where the gold is free, consists in submitting them to the contact of mercury after they have been crushed and rendered fine by washing. The levi- gated ore and the mercury are agitated together, until it is conceived that the amalgamation is perfect, when the compound is exposed to a heat sufficiently intense to volatilise the mercury, which is condensed, and recovered for successive operations. When gold occurs intimately mingled with iron pyrites, the pro- cess differs from that described above, only in that it is necessary to roast the ore, in order to pulverize it sufficiently to set it at liberty.

GOLD-BEATING. See *Gold*.

GOLD THREAD. The gold thread commonly used in embroidery, consists of threads of yellow silk, covered by flattened gilt wire, closely wound upon them by machinery.

GOLD WIRE. See *Gold*.

GOLD COAST; name given to a country of

Africa, near the Atlantic, about 120 leagues in length from E. to W., between the rivers Ancobar and Volta. It contains a variety of different states and kingdoms, and received its name from the immense quantity of gold which it produces. Several of the European nations have settlements here—the Dutch at Elmina, and the British at Cape Coast Castle. The climate is exceedingly hot from October to March; the rest of the months are tolerable. The principal countries on the Gold Coast are Ancobar, Axem, Anta, Commenda, Fetu, Sabi, Adom, Agouna, Acra, Acambou, Labadde, Fantin, Incassan, Ningo, Sabu, and Soko.

GOLDEN FLEECE. See *Jason*, and *Argonauts*.

GOLDEN FLEECE, Order of the, and The Three Golden Fleeces. See *Fleece, Golden*.

GOLDEN NUMBER, in chronology, a number showing what year of the Metonic, or lunar cycle, any given year is. To find the golden number, add 1 to the given year, and divide the sum by 19; what remains will be the golden number, unless 0 remain, for then 19 is the golden number. The discovery of the Metonic cycle exhibited such extensive astronomical knowledge, that it obtained great success and reputation in Greece, insomuch that the order of the period was engraved in letters of gold; whence it acquired the name of *golden number*. See *Epoch*.

GOLDEN-ROD (*solidago*) is a genus of plants, belonging to the natural order *compositæ*, containing a great number of species, most of them natives of North America, where their brilliant yellow flowers are very conspicuous in the autumnal months, especially in the north-eastern part of the Union. They are perennial, chiefly herbaceous, with simple, undivided leaves, and bear numerous small flowers, disposed in spikes or panicles. The florets of the ray are about five in number, and yellow, the *S. bicolor* excepted, which has white rays. The dried flowers of the *S. odora*, or sweet-scented golden-rod, form an agreeable substitute for tea. In Europe, the different species are cultivated in gardens for ornament. The island of St Helena contains two species, which attain the stature of trees, and an arborescent one grows also in New Zealand.

GOLDEN RULE; the name usually given by arithmeticians to the rule of proportion, or rule of three, on account of its extensive usefulness.

GOLD-FINCH. See *Finch*.

GOLD-FISH; the trivial name of a beautiful species of *cyprinus*, found in the fresh waters of China, and distinguished for the splendid golden colour of the membrane lying immediately beneath the scales. The *cyprinus aureus* of naturalists is subject to the most singular variations in colour, being at certain times bright golden orange, and at others bronze-black or silver; in the latter stage of colour it is known as the *silver-fish*. A species called the *telescope carp*, from its singular form, is distinguished for the broad, expanded, and foliate tail, which gives it a very peculiar appearance. This species are preserved in large ponds, where they breed, and acquire a size far greater than those introduced into this country. As an article of food, they are not used, and are only valued for their beauty and gentleness. They are said to be very prolific, and are easily bred, requiring scarcely any further attention than that of changing the water frequently. Individuals are sometimes met with, which want the dorsal fin, and others, which, by the uncommon dilatation of the eyes, appear very much deformed. The *cyprinus auratus* has been said to inhabit the fresh waters of North America; but, in every instance where specimens of this fish have been found in our rivers, they have been traced from the fish-ponds of the neighbourhood, where numbers of them were kept. In length they rarely exceed nine inches; the body is full, and subfusiform; the scales large; and, as in all the species of this division, the fins are without spinous rays.

GOLDONI, Charles, the most celebrated Italian writer of comedies of the eighteenth century, was born at Venice in 1707, where his grandfather, a Modenese, was a kind of farmer-general of the estates of the duke of Massa and Carrara, lying within the Venetian jurisdiction. The death of the old man, who was inclined to extravagance, involved the family in pecuniary embarrassments. Julius Goldoni, our poet's father, left Venice, therefore, and went to Rome. His wife, a woman of great vivacity and talent, remained with their children, two boys, and devoted herself exclusively to the education of the eldest, whose early display of intelligence made him her favourite. The lively Charles early showed a taste for theatrical representations. He read every dramatical production of which he could obtain possession, especially the works of the popular comic poet Cicognini, and, when scarcely eight years of age, ventured to sketch a comedy, which excited the wonder of his relatives. They sent a copy of it to his father, who, in the mean time, had become a physician, and practised his profession at Perugia. He was delighted with the genius displayed by his eldest son, and felt anxious to have him with himself. The mother was obliged to consent. Father and son now erected a little social theatre. But, as is well known, women were not permitted to appear on the stage in the papal states. On this account, our young Goldoni generally represented some female character. His fair complexion and beauty rendered him very suitable for these parts, and in Griffo's celebrated *Sorellina di Don Pilone*, for instance, he obtained great applause. He then enjoyed the instruction of the Jesuits, and afterwards pursued his studies at Rimini with the Dominicans. The severity and strictness of his instructor induced him to leave the place. A troop of strolling comedians was more attractive. He saw females on the stage, and was delighted. The comedians, also, won his affections. He resolved, therefore, to follow them secretly to Chiozza, where his parents then resided. They pardoned his foolish conduct. His father now destined him for the medical profession, and took him occasionally to visit his patients. But Goldoni, dissatisfied with this study, obtained permission to study law in Venice. Soon after, however, a relative procured for him a place in the papal college at the university of Pavia. Here, therefore, Goldoni again found himself transferred to a new world. His companions in the college were principally young and dissipated abbés. Goldoni followed their example. Jurisprudence was treated as a secondary object, while dancing, horsemanship, fencing, music, and gambling were zealously pursued. Still the youth, eager for knowledge, did not neglect to enrich his mind with useful information. His poetical and rhetorical powers continued to unfold, and procured him many friends; his satirical wit, however, made him disagreeable to many people. On a certain occasion, at the instigation of some persons who afterwards betrayed him, he wrote a satirical piece, in which many individuals of respectable families in Pavia were ridiculed. He was, in consequence, expelled from the college and the city, and he went to Chiozza, to ask pardon of his parents. His father now took him to Udina (in Friuli), where Goldoni applied himself more earnestly than in Pavia to study. He, however, committed many youthful follies, and on this account was several times obliged to change his residence, until he became secretary to the vice-chancellor of the criminal court in Chiozza, and af-

rards accompanied this officer to Feltre, where, at the age of twenty-two years, he had an appointment, and applied himself with great zeal to his official duties. The theatre was at this time his only recreation. A tolerable troop of players performed in Feltre. But a theatre of amateurs, in the governor's palace, in which he made his appearance, was still more attractive to him. He was appointed its director, and not only arranged two operas of Metastasio for exhibition without music, but also wrote two comedies, The Good Father and The Singer, which met with great applause, as did also his performance. His father had, in the mean time, established himself as a physician at Bagnacavallo, in the delegation of Ravenna, and was anxious that his son should live with him. Goldoni consented. But scarcely had he arrived, when his father died, and left his family in embarrassed circumstances. He now resolved to apply himself in earnest to the law. He was admitted to the practice of his profession in Padua, and went to settle in Venice. He found but few clients, however, and was obliged to look out for other employment. He wrote little almanacs, some of which were successful, commenced an opera (*Amalasonta*), &c. He brought himself into notice by the successful issue of a law case, in which the first advocate of Venice was his opponent; and things would perhaps have gone well with him, had he not involved himself in new difficulties by an unhappy intrigue. A hasty promise of marriage brought on new embarrassments. He left Venice and went to Milan. His opera (*Amalasonta*) was the only property which he carried with him. His hopes of making his fortune by means of it in this place were disappointed. The celebrated singer Caffarelli received him with that haughty incivility so common to successful players; and one of the directors showed him, in a friendly way, that his piece could not be set to music. Disappointed in his expectations, he burned his manuscript, not knowing to what he should next apply himself. The resident of the republic of Venice, however, took him into his house, and the poet composed his musical interlude, The Venetian Gondolier, which was well received, and was the first piece that he published. The events of the war in Italy, in 1733, interrupted the labours of the poet, who was driven successively from Cremona, Pizzighitone, and Parma, was plundered by marauders, and finally unexpectedly met a troop of comedians in Verona, with which he returned to Venice. Here his tragedy, *Belisarius*, written at this time, obtained him much reputation. A second tragedy, called *Rosamunde*, failed; and the author, again placed in uncomfortable circumstances, went to Padua, with another company of players, which generally performed no pieces but his. Thus he wandered until 1736, the companion of strolling players, and lived in a continual scene of dissipation and intrigue, until he married the daughter of a notary in Genoa, and removed to Venice. Here he first began to cultivate that department of dramatic poetry in which he was to excel; namely, description of character and manners, in which he took Molière, whom he began to study about this time, for his model. But the prevailing taste in his native country for masques and extemporaneous comedy, was a great obstacle in the way of his design to reform the theatre in this respect, and he often found himself obliged to yield to the habits of the people and the players, among whom the famous harlequin Sacchi, and his company, were at that time conspicuous in Venice. In 1739, he was appointed Genoese consul in Venice, a station which he certainly filled with ability and diligence. It brought him little or no profit, however, and, in 1741, the poet saw himself under the necessity of again retiring from Venice to seek a subsistence elsewhere. He removed with his family to Bologna, Modena, and Rimini, and composed for the company of players in that place. On the way to Pesaro, he was robbed of every thing by Austrian hussars, and a rascally postillion set him and his wife down on their way in the open field, and drove off. Goldoni carried his wife through several streams on his back, and, in spite of all obstacles, finally arrived at the Austrian head quarters, where he had all his baggage restored to him. He now took the direction of the theatre in Rimini, and, for some time, lived in comfortable circumstances. He then went to Florence and Sienna, where he met with a good reception; and at Pisa he was persuaded by the Arcadians, at whose sessions he was present, to return to the practice of the law. Our advocate had now an extensive practice. Sacchi heard of this change, and requested him to prepare a new piece. Goldoni now laboured in the night for the stage, and in the day time attended to his clients, Sacchi for the most part giving him the subjects of his pieces. At the same time, the Arcadians received him into their society, under the name of Polisseno Fegeio. Having suffered some neglect in Pisa, he again left the law, and followed a company of players, who adopted him as theatre poet to Mantua. From this place he went to Venice, from which he had been absent five years. Here, composing for the theatre *San Angelo*, he began his contest with the deep-rooted taste for harlequinades and extemporaneous pieces, and his genius at length brought about a new era in the art. Cares and vexation, however, threw him upon a sick bed. By his industry, the director of the theatre had been made rich, while he himself remained poor; and when he demanded a reasonable recompense, he obtained but the meagre permission to publish one volume of his works every year. Still he remained faithful to his agreement, followed the company to Turin, and, after the expiration of his contract, joined the theatre San Luca, but, at the same time, prepared a new edition of his works by subscription, by which he bettered his circumstances, while his opponents, the advocates of the old *Commedia dell' arte*, found new matter for censure. In 1758, being invited to the court of don Philip, at Parma, he wrote some operas, which were set to music by Duni and Piccini. In 1761, the Italian players invited him to Paris, where many of his pieces met with uncommon applause. By the influence of the dauphiness, he obtained the situation of reader and master of the Italian language to the daughters of Louis XV.; but, on account of the death of the dauphin, the dauphiness, and the king of Poland, his employment and pension were suspended. At the end of three years, a yearly pension of 3600 livres was granted him. At the breaking out of the revolution, the poet, now eighty-five years of age, lost his pension, and the decree of the national convention of the 7th of January, 1793, on the motion of Chenier, restoring it, and making up the arrears, found him already in the arms of death. He expired the next day, having almost completed his eighty-sixth year. His widow received the arrears and a pension for herself.

Goldoni's merits, in reforming the Italian theatre, cannot be mistaken. Many of his numerous pieces still retain possession of the stage in his native country, and, in translations, of the stages of foreign countries. Among the numerous editions of his works, that published at Lucca, in 1809, in twenty-six volumes, is the most complete. Translations and imitations of some of his works have been made in French, German, and English. Late writers of comedy have often drawn their materials from the rich mines of his wit and knowledge of the world.

His talents, however, were best adapted to pieces in which character and intrigue predominated; and here it is impossible not to admire the fertility of his invention with respect to the plot, which, notwithstanding the number of his pieces, is always new, and his true delineation of character in every situation. His memoirs, giving the history of his own life, and of the theatre of his time, have been translated into English and German, and copied, somewhat abridged, into the *Collection des Mémoires sur l'Art dramatique*, published at Paris. Goldoni wrote them in French, in which he also composed two comedies, one of which, *Le Bourru bienfaisant*, was produced at Fontainebleau and Paris, in 1771, with great applause, and has maintained itself on the stage.

GOLDSMITH, or SILVERSMITH; an artist who makes vessels, utensils, and ornaments, in gold and silver. The work is either performed in the mould, or beat out with the hammer, or other engine. All works that have raised figures are cast in a mould, and afterwards polished and finished: plates, or dishes, of silver or gold, are beat out from thin, flat plates; and tankards and other vessels of that kind are formed of plates, soldered together, and their mouldings are beat, not cast. The goldsmith makes his own moulds, and for that reason ought to be a good designer, and have a taste in sculpture: he also ought to know enough of metallurgy to be able to assay mixed metals and to mix the alloy.

GOLDSMITH, OLIVER, an eminent poet and miscellaneous writer, was born in 1731, at Pallas, in the county of Longford, Ireland. His father, the reverend Charles Goldsmith, sent him, at an early period, to Dublin college, and afterwards, with a view to the medical profession, to the university of Edinburgh. At both these institutions, the eccentricity and carelessness of his conduct involved his friends in considerable difficulties; and he was removed to Leyden at the expense of an uncle. After studying at that university for about a year, he left it, with only one clean shirt, and no money in his pocket, to make the tour of Europe on foot, and actually travelled in this way through Flanders, part of France, Germany, Switzerland, and Italy. It was, probably, at Padua that he took a medical degree, as he remained there six months; but, his uncle dying while he was in Italy, he was again obliged to travel on foot to England, and reached London with a few pence in his pocket. A fellow collegian, doctor Sleigh, assisted him, and recommended him as an usher to a school. He remained but a short time in this situation, and then took lodgings in London, to follow the profession of an author. He conducted a department in the Monthly Review, wrote essays in the Public Ledger (since published under the title of the Citizen of the World), and a weekly pamphlet, entitled the Bee. In 1765, he appeared as a poet, by the publication of his Traveller. The celebrity which this poem procured its author, was the cause of his introduction to the most eminent literary characters of the day. In 1766, appeared his well known Vicar of Wakefield, which at once secured merited applause. He also, about this time, composed one of his most successful works, a History of England, in a series of Letters from a Nobleman to his Son (2 vols. 8vo), which, for its elegance and liberal spirit, was usually attributed to lord Lyttelton. In 1768, his comedy of the Good-natured Man was acted at Covent-garden with but indifferent success, and he applied to the more certain labour of a Roman History, and a History of England, in four volumes. His poetical fame was greatly enhanced by the publication of his Deserted Village, in 1770, for which he could hardly be induced to take the proffered recompense of £100, until satisfied that the profits of the bookseller could afford it. In 1772, he produced his comedy of She Stoops to Conquer, which was completely successful. He did not, on this account, neglect compilation, and, besides a Grecian History, he supplied the booksellers with a History of the Earth and Animated Nature, composed out of Buffon and others, in a manner which was both amusing and instructive, although the scientific acquirements of the author were not sufficient to guard against numerous errors. Such was the confidence he had acquired in his skill in compilation, that he was meditating a universal dictionary of the arts and sciences, when a despondency of mind, probably owing to the derangement of his circumstances, brought on a low fever, which terminated his life in April, 1774. He was buried with little attendance in the Temple church, but a monument has been erected to his memory in Westminster abbey, with a Latin inscription, by doctor Johnson. The manners of Goldsmith were eccentric, even to absurdity; no writer of his time possessed more genuine humour, or was capable of more poignancy in marking the foibles of individuals, of which faculty his unfinished poem of Retaliation furnishes a very happy specimen. As a poet, his Traveller and Deserted Village have given him a deserved reputation; and his Vicar of Wakefield is one of the best known and most esteemed of English novels. His compilations are peculiarly felicitous. It was truly observed in his epitaph, by doctor Johnson, that he left no species of writing untouched, and adorned all to which he applied himself.

GOLGOTHA. See *Calvary*.

GOMARUS and GOMARISTS. See *Reformed Church*.

GONDAR; a town in Africa, and the capital of Abyssinia, situated on a hill of considerable height, surrounded on every side by a deep valley; lon. 37° 40′ E.; lat. 12° 30′ N. It contains 10,000 families in time of peace, or 50,000 souls. According to Poncet, who visited Gondar in 1699 it was then three or four leagues in circuit, and contained 100 churches. It exhibited nothing of the splendour of a European city. The houses were of only one story, and there were no shops. The trade, which was extensive, was carried on in a vast open plain, where the goods were daily exposed on mats. The houses are chiefly of clay, the roofs thatched in the form of cones, which is always the construction within the tropical ruins. At the west end of the town is the king's house, formerly a structure of considerable consequence; it was a square building, flanked with square towers; it was formerly four stories high, and from the top of it had a magnificent view of all the country southward to the lake Tsana. A great part of this house is now in ruins. See *Bruce's Travels*.

GONDOLA; a sort of barge, curiously ornamented, and navigated on the canals of Venice. The middle-sized gondolas are upwards of thirty feet long, and four broad; they always terminate at each end in a very sharp point, which is raised perpendicularly to the full height of a man.

GONDOLIER; the boatman of a gondola. The gondoliers were formerly an interesting part of the Venetian population, but since Venice fell under the dominion of the house of Hapsburg, the spirit of the population has departed; the lagoons are allowed to be choked, and to corrupt the air.

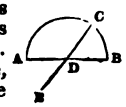
> In Venice Tasso's echoes are no more,
> And silent rows the songless gondolier.

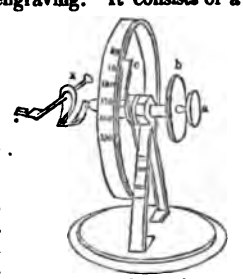
The gondoliers formerly sung alternately stanzas of poems, particularly of Tasso's Jerusalem Delivered, though with great changes from the original, to beguile the time. This was called *Canta alla Barcariola*. See the third note to canto iv. of Childe Harold.

GONG, a Chinese instrument of music, is a shallow kettle, three inches deep, made of an alloy of tin, bismuth, and copper, and is struck with a wooden mallet covered with leather. The sound is very loud.

GONGORA, Louis, a celebrated Spanish poet, was born at Cordova in 1562. He was educated for the church, and was made chaplain to the king, and a prebendary in the cathedral of Cordova. His works have been published in one volume, quarto, under the title of *Obras de Dom. Louis de Gongora y Argote*. They consist chiefly of lyrical poems, in which he excelled, being called by his countrymen *the prince of lyric poets*. His style, however, is often difficult to comprehend, even to the Spaniards themselves, and he has had almost as many censurers as admirers in his own country. He died in 1627.

GONIOMETER, any instrument for measuring angles, but more particularly the angles formed by the faces of crystals. The goniometer employed by Hauy was very simple in construction, but by no means adequate to take minute measurements. It consisted of a brass semicircle, divided into degrees, similar to the common protractor. The extremities of the arc ACB were joined by a brass straight edge AB, on which an axis was fixed at D the centre of the arc ACB. An arm CE moved round this centre, and the crystal being placed at the angle ADE, with one of its faces applied to the edge AD, the arm was moved on its axis till the edge DE was applied to the contiguous face of the crystal. Then the point C indicated the angle of inclination, or rather the supplement of that angle. Even in practised hands this instrument could not be depended upon for correct measures to within two or three degrees; and, as the science of crystalography depended upon the accuracy of these measurements, philosophers applied themselves to the construction of more perfect goniometers. Dr Wollaston's goniometer, which is most commonly in use, operates upon optical principles, and is represented in the annexed engraving. It consists of a brass circle graduated into degrees on the edge, and furnished with a *nonius*, c, so that angles can be measured correct to one minute. The circle has a vertical motion upon an axis, supported by a stand as shown in the engraving. This axis is in the form of a tube, and contains within it a smaller axis which may either be turned round with or without the axis of the circle, as may be required. In order that these axes may be turned with facility, the small one is furnished with a milled head *a*, and the large one with a milled head *b*, by which arrangement, when the small one is held and the large one turned, the circle will move round independent of the small axis, and by holding the large milled head while the smaller is turned, then the smaller axis will move independent of the circle; and the one axis is fitted so tightly into the other, that, when one milled head is turned round, while the other is untouched, both axes will move together. The crystal to be examined is fastened on a kind of universal joint at *x*, capable of being placed in different positions by means of screws, and carried round on the end of the smaller axis. The crystal to be examined is attached to the end of the joint at *x* by means of sealing wax, and placed in such a position that its edge shall be parallel to the axis of motion. The smaller axis is now turned round, while the eye is kept steadily at about an inch distant until the bar of a window, or some other object is reflected from the surface of the crystal. The smaller axis is kept in this position, while the circle is turned round so that 0° or 180°, shall be set at an index fixed in the stand. The circle is then turned round, along with the smaller axis, until the next side of the crystal comes to the same position as the first; that is, where it reflects the same object to the eye in the same situation as before. The arc passed through by the circle, will be the supplement of the angle formed by the two faces of the crystal; but it is so graduated that no calculation is required, the angle itself being pointed out. This instrument is well fitted for measuring the angles of small crystals, and with a little care, the measures may be taken with sufficient minuteness, for all practical purposes. Malus converted this goniometer into a repeating circle, but with what advantage it is not easy to see, since a repeating instrument implies a degree of minuteness in measurement, in most cases unattainable in the angles of crystals. Dr Brewster has contrived a goniometer on optical principles much more complex in its construction than the instrument of Wollaston, but capable of measuring hollow angles as well as solid, but it would be out of place in a work of this nature to give an account of this ingenious contrivance.





GONSALVO, Hernandez y Aguilar, de Cordova, called the *great captain* (*el gran capitan*), was born at Montilla, near Cordova, in 1443, and, when fifteen years of age, served under his father, don Diego, against the Moors of Granada. As a reward of his bravery, Henry IV., king of Castile, intrusted him with the command of a company, with which he spread terror to the very gates of Malaga, and in 1460, decided the victory of Las Yeguas. The king himself knighted him on the field of battle. From 1458 to 1467, he served with distinction against the Moors, at the capture of Gibraltar and in the Catalonian war. After the death of Henry, Ferdinand and Isabella having ascended the throne, and the king of Portugal having declared war against them, Gonsalvo contributed not a little to the victory of Toro, in 1476. In the bloody war of Granada he took many places by storm, and vanquished the boldest Moors who dared to meet him in single combat. Granada finally submitted, and, on the entry of the conquerors, he was appointed to carry the flag of Castile. Ferdinand then sent him with 5600 men to assist his relative, Frederic king of Naples, against the French. Having secured that throne, he returned to Spain, where he was engaged in subjecting the Moors, in the Alpuxarras, when Louis XII. of France renewed the war against Naples. In 1500 Gonsalvo again set sail with a corps of 4300 men, ostensibly to assist the Venetians against the Turks. He delivered Zante and Cephalonia from the infidels, and restored them to Venice. He then landed in Sicily, and informed the king of Naples that he was come to secure that part of the kingdom which, by virtue of the treaty with Louis XII., had fallen to Spain. Frederic, finding himself so closely pressed by two enemies, finally retired with his treasures into an island. The French, under the duke of Nemours, entered Naples, while Gonsalvo secured Calabria, and, according to the articles of the treaty, demanded also Basilicata and Capitanata. To this the French, who considered them as belonging to their part (Abruzzo), would not consent. The result was a war between France and Spain, which was carried on with a variety of fortune, until Gonsalvo, by the victory near Seminara in 1502, obtained possession of both Calabrias. In 1503, he gained a still more important victory near Cerignola, in consequence of which

Abruzzo and Apulia submitted, and Gonsalvo marched into Naples. He then sat down before Gaeta. As the siege was protracted, he gave up the command to don Pedro Navarro, and advanced to meet the enemy. He defeated the marquis of Mantua; and, on the Garigliano, with 8000 men, obtained a complete victory over 30,000 French, the consequence of which was the fall of Gaeta. The possession of Naples was now secured. Ferdinand bestowed upon him the duchy of Sessa, and appointed him viceroy of Naples, with unlimited powers. His kindness, justice, and magnanimity soon procured him the favour of the people. His prosperity, however, raised up powerful enemies against him, whose insinuations so far prevailed with Ferdinand, that he at first diminished his power, and finally recalled him from his post. Ferdinand even went to Naples himself, and took Gonsalvo with him back to Spain, and made him grand master of the order of St James. Gonsalvo, dissatisfied with having lost his influence, conspired with the high constable of Castile against the king, whose prudent measures, however, quelled the insurrection in its very commencement. Gonsalvo retired to his estates in Granada. His differences with the king, who showed the greatest forbearance towards his old hero, continued for a long time. They were at last reconciled, and Gonsalvo was upon the point of again assuming the command of an army, when he died at Granada in 1515.

GONZAGA. On the decline of the imperial power in Italy, in the eleventh century, the principal families of Mantua took possession of the government of the place. Among these the house of the Bonacorsi was the most powerful during forty years, until the house of Gonzaga rose to eminence. Aug. 14, 1328, Lodovico Gonzaga assumed the sovereignty, after his sons, inflamed by private revenge, had taken possession of Mantua, with 800 foot soldiers and 500 horsemen, slain Passenino de'Bonacorsi, the chief of the city, on the field of battle, and banished his followers. The emperor Louis of Bavaria then appointed Ludovico the imperial vicegerent. He died in 1360, aged ninety-three. Among his descendants, John Francis Gonzaga, in 1432, obtained possession of the city, with its territory, under the title of a marquisate, as a fief from the emperor Sigismond. After that time, the house of Gonzaga was divided into several branches, from which sprang many celebrated individuals. With Vincenzo II. the reigning line became extinct in 1627. The next heir would have been the duke of Nevers, Charles I. of Gonzaga, but the duke of Guastalla, Ferdinand II., who was one degree more remote, laid claim to the whole inheritance, and Charles Emanuel, duke of Savoy, claimed Montferrat. It was evident that the house of Nevers had a legal right, for Louis, duke of Nevers, father of Charles I., was brother of Francis III., grandfather of the duke, and, by going to France, did not renounce his claim to the succession. France, Venice, and the pope supported him; for all three desired to see an end of the overbearing influence of the Spanish-Austrian power. Spain and Austria, on the other hand, supported the groundless claims of the duke of Savoy, whence arose a war concerning the right of succession to Mantua, which finally ended according to the wishes of Richelieu; for the emperor was obliged to invest Charles, duke of Nevers, with Mantua and Montferrat. He obtained peaceful possession of them in 1631. His grandson, Charles III. (Charles II. died in 1631, during his father's lifetime), succeeded him in 1637, and, during his reign, the principality obtained full independence. (He died in 1665.) His son and successor, Charles IV., received a French garrison into Mantua, and engaged, on the side of France, in the contest which grew out of the Spanish succession. On this account, the emperor Joseph I. declared him under the ban of the empire. He died at Padua in 1708. Austria remained in possession of his territory, and Montferrat was transferred to Savoy. Many persons of this family have obtained military renown. Others have been conspicuous for their love of the arts and sciences. Lodovico Gonzaga sent Pietro Crema, with letters and a large sum of money, to France, in order to persuade Petrarch to come to him. Another Lodovico Gonzaga, who died about 1549, was a poet. Cæsar, in 1565, erected the academy *degl'invaghiti*; and others of the family founded galleries of paintings and antiquities. Giulio Romano, under their patronage, established an extensive school for painting, and many celebrated artists received from them support and honour.—Lucretia Gonzaga, the unfortunate wife of Pino Manfrone, left many letters, which have been collected and published (1552, which Haym, however, ascribes to Hortensio Landi). Among those who have obtained renown by their influence in state affairs, Louisa Maria, the daughter of duke Charles, is conspicuous. She was married successively to Ladislaus and Casimir, kings of Poland, and died in 1667. Her sister Anna, the wife of the prince palatine Edward, for same time played an important part at the French court. She died at Paris in 1684, aged 68 years, and, from the manuscripts which she left at her death, the interesting *Mémoires d'Anne de Gonzagues* were compiled and published (London and Paris, 1786).

GOOD FRIDAY. See *Friday, Good.*

GOOD, John Mason, a physician, poet, and philological writer, was the son of a dissenting minister, and was born at Epping, in Essex, in 1764. He was apprenticed to a surgeon at Gosport, and engaged in practice at Coggeshall, in his native county. In 1793, he removed to London, where he carried on business for several years as a surgeon and apothecary. In 1810, and the two following years, he delivered physiological lectures at the Surrey institution, which were afterwards published. Having obtained a diploma from the university of Aberdeen, he commenced physician in 1820, and continued to practice in that capacity till his death, January 2, 1827. His principal works are, Memoirs of the Life and Writings of Dr Alexander Geddes (1803, 8vo); translations of Solomon's Song and the Book of Job; a translation of Lucretius, On the Nature of things, (1805, 2 vols. 4to); Medical Technology (1810, 8vo); A Physiological System of Nosology (1817, 8vo); and The Study of Medicine, (1822, 4 vols. 8vo).

GOODWIN SANDS; a bank in the sea, near the coast of Kent, said to have been formerly part of the estate of earl Goodwin; till, by neglect in preserving the dikes and walls, the whole was drowned by the sea. A great part is dry at low water. It lies to the E. of the Downs, about five miles from the South Foreland.

GOOKIN, Daniel, a major-general of Massachusetts, and author of the Historical Collections of the Indians in New England, was born in England, and, in the year 1621, emigrated to Virginia. He continued to reside in that province until 1644, when he removed with his family to New England, and settled in Cambridge, "that he might enjoy the ordinances of the gospel in their purity." He was there appointed superintendent of all the Indians who had submitted to the government of Massachusetts. In 1656, he went to England, and had an interview with Cromwell, who employed him to persuade the inhabitants of Massachusetts to remove to Jamaica. In 1666, he became very unpopular, in consequence of the support which he gave

to the friendly Indians, against whom several severe laws had been passed, through apprehension that they might join king Philip. His resistance, however, soon afterwards, to the attempts made to destroy the charter of Massachusetts, reinstated him in the confidence and favour of the people. In 1681, he was made major-general of the colony. He died in 1687, in the seventy-sixth year of his age. His principal work is called Historical Collections of the Indians, and was published in the first volume of the Collections of the Massachusetts Historical Society, in 1782. He also left, in manuscript, a history of New England.

GOOSE (*anas*). Those species of this genus which are generally known by the name of *ducks*, have been spoken of under that head. The common goose, whose domestication is much less ancient and complete than that of the common hen, is the *A. cinereus*, which, in its wild state, is grey, with an orange beak. Domestication has already induced innumerable varieties; this state has also greatly added to the fecundity of this bird. Three different broods can be obtained by taking away the first eggs, and hatching them under a hen. None of our domestic birds are so apt to bring forth monstrous productions as geese—a circumstance which has been attributed to the excessive fatness to which they are liable. The liver of a fat goose is often larger than all the other viscera, and was a dish in so great reputation among the epicures of Rome, that Pliny thought it deserved a serious discussion, to whom the honour of inventing so excellent a dish was due. They fed their geese on figs, to improve their relish, and were not ignorant that they fattened sooner in a dark room; but it was left for modern gastronomers to invent the barbarous method of nailing down their feet and putting out their eyes.

Among the principal species of geese may be enumerated the following, which are chiefly peculiar to America:—

The snow goose (*A. hyperborea*). This species, which is called *red goose* on the sea coast, arrives in the Delaware from the north early in November, usually in considerable flocks. They make but a short stay on their first arrival, going further south; but, early in the spring, they are often very numerous about Reedy Island. The snow goose is two feet eight inches in length, and its wings are five feet in extent. The bill of this bird is very curious, the edges having each twenty-three indentations, or strong teeth, on each side. The inside, or concavity, of the upper mandible, has also seven rows of strong, projecting teeth, and the tongue, which is horny at the extremity, is armed on each side with thirteen long and sharp bony teeth. The flesh of this species is excellent.

Laughing goose (*A. albifrons*). Body brownish; beneath white varied with black; bill and feet orange. This species inhabits the northern parts of both continents, and migrates to the more temperate climates during the winter, though it rarely comes as far south as the Middle States or Italy.

Bean goose (*A. segetum*). Dark cinereous; beneath whitish; folded wings longer than the tail; bill long, black, and orange. This species is also common to both continents; in this country, it is scarcely ever seen as far south as the Northern States, though in Europe its migrations are more extensive.

Canada goose (*A. Canadensis*). Dark ash-coloured; head, neck, and tail black; cheeks and throat white; bill and feet black. This is the common wild goose of the United States, and is known in every part of the country. In their annual migrations to the north, it is the general opinion that they are on their way to the lakes to breed; but it is observed by Wilson, from whom the following account is condensed, that it is highly probable that they extend under the very pole itself, amid the silent desolation of unknown countries, shut out from the prying eye of man by everlasting and insuperable barriers of ice. After having fulfilled the great law of nature, the approaching rigours of that dreary climate oblige them to return towards the more genial regions of the south; and no sooner do they arrive among men, than an indiscriminate slaughter of them commences. The people at Hudson's bay greatly depend on these birds, and, in favourable seasons, kill three or four thousand, which are packed up for future use. The autumnal flight lasts from the middle of August to November; the vernal from the middle of April to the middle of May. The flight of the wild goose is heavy and laborious, generally in a straight line, or thus ⩾; in both cases, an old gander always leads the van. The wild goose has often been domesticated, and it readily pairs with the common goose. The wild goose, when in good order, weighs from ten to twelve and some times fourteen pounds.

A. leucopsis. Dark cinereous; neck and tail black; face and beneath the breast white; bill and feet black. This species inhabits the arctic circle, migrating during the winter to more temperate regions; it is but seldom found within the limits of the United States.

Brant (*A. bernicla*). Blackish ash-coloured; the head, neck, and breast black; a white patch on each side of the neck; beneath whitish; bill and feet black. The brant generally weighs about four pounds, and measures two feet in length. It is often seen in our markets for sale. Its flesh, although esteemed by many, tastes somewhat sedgy. It is very common and numerous in the Middle States, during its double passage, when great havoc is made among its numbers.

There are several other species, such as the grey goose (*A. cinereus*), dusky goose (*A. rufescens*), and the *A. medius*.

GOOSEBERRY (*ribes uva crispa*); a low, branching shrub, growing wild in Siberia and the north of Europe. The branches are armed with numerous prickles, and bear small rounded three to five lobed leaves and inconspicuous flowers. The fruit, which is wild and sweet, attains a larger size and higher flavour in some of the cultivated varieties, which are very numerous, and have particularly attracted the attention of our gardeners. Several species of gooseberry are indigenous to the northern and mountainous parts of the United States of America, one of which bears small purple berries of an agreeable flavour, and is not unfrequently met with in their gardens.

GOOSE-FOOT (*chenopodium*) is a genus of plants, containing twenty-six species, most of them indigenous to the temperate parts of the eastern continent. They are, with a few exceptions, annual, bearing alternate entire or dentate leaves, and small greenish flowers, which are disposed in axillary or terminal racemes. The calyx is five-parted, the seed solitary and lenticular; there are five stamens, two styles, and the corolla is wanting. Many of the species grow abundantly in waste places throughout Europe, and have been introduced into America, where they are now common weeds in all cultivated grounds. The leaves of some make a good substitute for spinage, and the young shoots are sometimes eaten as asparagus. The *C. quinoa* of Chile is very celebrated in that country, and is carefully cultivated both for the leaves and seeds; the latter of which are used instead of millet, and, when mixed with it, yield an agreeable kind of beer. The Spaniards have taken great pains to introduce this plant into Europe, (with

every prospect of success. The *C. anthelminticum* is considered an excellent vermifuge.

GORANI, Joseph, count of, a political writer, was born at Milan, in 1740. He was descended from an ancient family. This learned and accomplished scholar belonged to a literary club, called the *Coffee House*, which carried on a correspondence with Voltaire, Diderot, D'Alembert, and baron Holbach. Under the title of the Coffee House, he published a journal, in which political subjects were discussed. The club generally assembled at the house of count Verri, the author of Roman Nights. Among its members were Lambertenghi, the abbé Paul Frisi, and the marquis Beccaria, who here projected the plan of his celebrated work on crimes and punishments. Joseph Baretti attacked the journal in a periodical work, *Frusta Letteraria*, or the Scourge. The club afterwards advocated the French revolution. Gorani was among the most zealous. In the works of his more mature years, on philosophy, political economy, and public education, he breathes a democratic spirit. The same is true of his Secret Memoirs of Italy (*Mémoires secrets et critiques sur les Cours d'Italie*, 3 vols., Paris, 1793); especially of his Memoirs of Naples, and his Treatise upon Despotism, and his Essay on the Science of Government. His love of freedom and equal rights, and his desire for the abolishment of the distinctions of birth, caused him to be struck from the list of the Milanese nobility, and his estates to be confiscated; in return for which, the national assembly conferred upon him the title of "a French citizen." Gorani went to France in 1792, and thence to Geneva in 1794.

GORDIAN KNOT. See *Alexander the Great*, and *Gordius*.

GORDIUS, a peasant, was raised to the throne of Phrygia. An insurrection having broken out, the inhabitants consulted the oracle concerning a new king. It designated him, whom, on their return, they should meet, mounted on a chariot, going to the temple of Jupiter. This was Gordius, who, to evince his gratitude, consecrated his chariot to Jupiter, and fastened the pole with so ingenious a knot, that the oracle promised the dominion of the world to him who should untie it. He built the capital, Gordium. When Alexander came to Gordium, and saw the impossibility of untying the knot, he cut it with his sword.

GORDON, George, called, by courtesy, *lord George Gordon*, was the son of Cosmo George, duke of Gordon, in Scotland, and was born in 1750. He entered when young into the navy, but left the service during the American war. He then became a member of the house of commons. His parliamentary conduct was marked by a certain degree of eccentricity, but he displayed no deficiency of talent, often animadverting with great freedom on the ministers and their opponents. At length, in 1780, a bill having been introduced into the house for the relief of Roman Catholics from certain penalties and disabilities, he collected a mob, at the head of whom he marched to the house of commons, to present a petition against the proposed measure. The dreadful riot which ensued, and which was not suppressed till after the destruction of many Catholic chapels and dwellings, the prison of Newgate, and the house of the chief justice, lord Mansfield, led to the arrest of lord George Gordon, and his trial on the charge of high treason; but, no evidence being adduced of treasonable design, he was acquitted. In May, 1786, he was excommunicated for refusing to come forward as a witness in a court of law. He then published a Letter from Lord G. Gordon to the Attorney-General of England, in which the Motives of his Lordship's public Conduct, from the beginning of 1780 to the present Time, are vindicated (1787, 8vo). In the beginning of 1788, having been twice convicted of libelling the French ambassador, the queen of France, and the criminal justice of his country, he retired to Holland, but he was arrested, sent home, and committed to Newgate, where he passed the remainder of his life. He died, Nov. 1, 1793, disturbed in his last moments by the knowledge that he could not be buried among the Jews, of whose religion he had become a zealous professor during his imprisonment.

GORDON, William, D.D., an historian of the American war, was born in England, where he became a clergyman, first at Ipswich, afterwards at Wapping. He emigrated to America, in 1770, and July 6, 1772, was ordained minister of a church in Roxbury, Massachusetts. During the revolutionary war, he was warmly attached to the American cause, and for some time was chaplain to the provincial congress of the colony in which he lived. After peace had been made, he returned to his native country, and published his History of the United States of America (London, 1788). He died in England, on the 19th of October, 1807, having survived the complete extinction of his mental faculties.

GORE, Christopher, a governor of the state of Massachusetts, was born in Boston, in 1758, and was the son of a respectable mechanic, who acquired a considerable fortune by his industry. He was graduated at Harvard university, in 1776, when he commenced the study of the law, and soon acquired a lucrative practice. Before he had attained the age of thirty, he was elected by the citizens of Boston, with Hancock and Samuel Adams, to the convention of the state, which adopted the federal constitution. In 1789, he was appointed by president Washington the first United States' attorney for the district of Massachusetts; the duties of which office, difficult as they were at that period of distraction and trouble, he continued to discharge with firmness and ability, until 1796, when he was appointed, by the president, colleague of the celebrated William Pinkney, in the commission under the fourth article of Jay's treaty, to settle the American claims upon England for spoliations. In this situation, he evinced his wonted energy and talent, and recovered property to a very great amount for his fellow citizens. When Rufus King, at that period American minister at London, and the intimate friend of Mr Gore, returned to America in 1803, he left him *chargé d'affaires*. In 1804, he returned home, and was twice elected to the senate of the state from the county of Suffolk, and then to the house of representatives from Boston. In 1809, he was chosen governor of Massachusetts, but retained this dignity only for one year. In 1814, he was called to the senate of the Union, by the appointment of governor Strong, during a recess of the legislature. The appointment was ratified by the legislature at their ensuing meeting. He served in this capacity for three years, and then withdrew into a retirement, in which he ended his life, March, 1, 1827, in the sixty-ninth year of his age. Mr Gore possessed a clear, sound mind, with a firm and decided, yet liberal spirit. He was an excellent classical scholar, and was well versed in general literature. His manners were finished and graceful, and his person uncommonly fine.

GOREE; a seaport, on an island of the same name, situated near the east coast, on a canal which communicates with the Meuse; formerly a place of considerable trade; but the harbour is now choked up with sand, though the road is still good; six miles west of Helvoetsluys; population, 694.

GOREE; a small island, or rather rock, belonging to France, on the coast of Africa, a little to

an a mile from the southern shore of the promontory that forms cape Verd; lon. 17° 25′ W.; lat. 14° 40′ N. It is of consequence only from its inaccessible situation, which renders it capable of being converted into a strong military position. It is about two miles in circuit. It is composed of a basalt rock, which rises to the height of 300 feet, on the top of which is fort St Michael. At the foot of the rock is the town of Goree, said to contain 5000 inhabitants. It is a busy place, and the entrepot of all the French trade on the opposite coast of Africa.

GORGIAS, surnamed *Leontinus*, from Leontium in Sicily, was a learned orator and sophist, who flourished in the fifth century B. C. He is said to have been a disciple of Empedocles, and was one of the earliest writers on rhetoric. He displayed his eloquence at the Olympian and Pythian games, and made such an impression, that a golden statue was erected in his honour at Delphi. He was one of the first who introduced numbers into prose, and who treated of common-places, and showed the use of them for the invention of arguments; and, on this account, Plato gave the name of *Gorgias* to his elegant dialogue on this subject, which is still extant. Gorgias lived to the age of 107 or 108 years.

GORGONES; three celebrated sisters, daughters of Phorcys and Ceto. Their names are Stheno, Euryale, and Medusa. They were all immortal, except Medusa. According to the mythologists, their hairs were entwined with serpents, their hands were of brass, their body was covered with impenetrable scales, their teeth were as long as the tusks of a wild boar, and they turned to stones all those on whom they fixed their eyes. Medusa alone had serpents in her hair, according to Ovid, and this proceeded from the resentment of Minerva, in whose temple Medusa had gratified the passions of Neptune, who was enamoured of her on account of the beautiful colour of her locks, which the goddess changed into serpents. Æschylus says, that they had only one tooth and one eye between them, of which they had the use, each in her turn; and, accordingly, it was at the time that they were exchanging the eye, that Perseus attacked them, and cut off Medusa's head. According to some authors, Perseus, when he went to the conquest of the Gorgons, was armed with an instrument like a scythe, by Mercury, and provided with a looking-glass by Minerva, besides winged shoes and a helmet of Pluto, which rendered all objects clearly visible and open to the view, while the person who wore it remained totally invisible. With weapons like these, Perseus obtained an easy victory, and, after his conquest, returned his arms to the different deities whose favours and assistance he had experienced. The head of Medusa remained in his hands, and after he had finished all his laborious expeditions, he gave it to Minerva, who placed it on her Ægis, with which she turned into stones all such as fixed their eyes upon it. It is said that, after the conquest of the Gorgons, Perseus took his flight in the air towards Æthiopia, and that the drops of blood which fell to the ground from Medusa's head were changed into serpents, which have ever since infested the sandy deserts of Libya. The horse Pegasus also arose from the blood of Medusa, as well as Chrysaor, with his golden sword. The residence of the Gorgons was beyond the ocean towards the west, according to Hesiod. Æschylus makes them inhabit the eastern parts of Scythia; and Ovid maintains as the more received opinion, that they lived in the inland parts of Libya, near the lake of Triton, or the gardens of the Hesperides. Diodorus and others explain the fable of the Gorgons, by supposing that they were a warlike race of women near the Amazons, whom Perseus, with the help of a large army, totally destroyed.

GORLITZ; a town in the Prussian government of Liegnitz, province of Silesia, in Upper Lusatia, on the left bank of the Neisse; lon. 15° 31′ E.; lat. 51° 9′ N.; contains 9900 inhabitants. Its trade in linen and woollen cloth is considerable. Upon a hill, before the gate, is the holy sepulchre, which, in 1489, the burgomaster Emerich caused to be built after the model of that in Jerusalem, which he had twice visited. Here is the seat of the Upper Lusatian society of science. In the neighbourhood is the Landskrone, a conic mountain of granite and basalt, 1390 English feet high.

GORTZ. See *Goertz*.

GOSHAWK (*falco palumbarius*, Lin.). This bird is common both to the old and the new world. Wilson described the American bird, in his excellent work, under the name of *atricapillus*, but, at the same time, suspected that it might prove identical with the European. This was confirmed by Sabine. European naturalists have also added to the confusion, by describing it under the different names of *gallinarius*, *gentilis*, &c., according as it varied in plumage. The goshawk is twenty-one inches in length; the bill and cere are blue; crown, black, bordered on each side by a line of white, finely speckled with black; upper parts, slate, tinged with brown; legs, feathered half way down, and, with the feet, yellow; tail, feathers, with pale bands. The goshawk feeds on mice and small birds, and eagerly devours raw flesh. It plucks the birds very neatly, and tears them into pieces, before it eats them; but swallows the pieces entire. They are said to be used by the emperor of China, in his hunting excursions, when he is usually attended by his grand falconer, and a thousand of inferior rank. Every bird has a silver plate fastened to its foot, with the name of the falconer who has charge of it, that, in case it should be lost, it may be restored to the proper person. It was also used in Europe for the same purpose, in common with other kinds, as the *gerfalcon*, the *falcon*, the *lanner*, the *sacre*, the *merlin*, the *hobby*, and the *kestrel*, which were called *long-winged hawks*, in contradistinction to the goshawk, sparrowhawk, kite and buzzard, which are of shorter wing, and less courageous. See *Falconry*.

GOSHEN, in ancient geography; a district of Egypt, which Joseph procured for his father and brethren.

GOSPEL; a message of joy. This word is derived from *good* and *spell*, an old word signifying *tidings* (which would make *godspel* a literal translation of the Greek *ευαγγελιον*); or from *God* and *spell*, God's tidings. It is commonly applied to the Christian revelation, beginning with the glad tidings of the coming of the promised Messiah, at the birth of Christ, and also to the several histories of Jesus Christ, written by Mark, Luke, and the apostles Matthew and John. In the primitive church, those who travelled from one church to another, continuing the instructions of the apostles, were called *evangelists*, that is, gospellers, or preachers. More modern usage has limited this word to the above-mentioned authors of the life of Jesus Christ.

GOSPORT; a seaport town of England, in Hampshire, 1 mile N. W. Portsmouth. Lon. 1° 7′ W.; lat. 50° 57′ N. It is situated on a projecting point of land, at the western side of the entrance to Portsmouth harbour. On the S. W. is a commodious bay, called *Stoke's bay*. Numerous government works and magazines have been established here, for supplying the wants of the navy; extensive barracks, also, for the accommodation of the military. Gosport has, of late, been regularly fortified on the land

side, by a line of bastions, redoubts, &c. Here is a large academy for the instruction of young men intended for the army and navy. To the south of the town stands Haslar royal hospital, for sick and wounded seamen, a magnificent building, capable of accommodating 2000 patients. Population in 1812, 13,637.

GOSSAMER is the name of a fine filmy substance, like cobweb, which is seen to float in the air in clear days in autumn, and is most observable in stubble-fields, and upon furze and other low bushes. This is probably formed by the flying-spider, which, in traversing the air for food, shoots out these threads, which are borne down by the dew, &c.

GOSSEC, Francis Joseph, a musical composer, was born, 1733, at Vergnies, a village in Hainault. For eight years of his boyhood, he was attached to the choir in the cathedral at Antwerp. He never had any other teacher than the scores of great musicians. Like Haydn, he complained that he had no opportunity to see Italy, and the schools of that country. In 1751, he went to Paris, where he was leader of the orchestra of M. de la Popelinière, under the direction of the great Rameau. At a later period, he was employed in the same capacity in the orchestra of prince Condé, for whom he composed several operas. In 1770, he established a concert of amateurs, which became famous. In 1773, he took the direction of the *concert spirituel*, in connexion with Gaviniés and Le Duc, until, in 1777, he was excluded by an intrigue. In 1784, he became director of the singing school established by the baron de Breteuil. During the revolution, he became music-master of the national guard, and, in 1795, when the *conservatoire* (q. v.) was founded, he, with Méhul and Cherubini, became inspector of this establishment, and professor of composition. Catel, his most eminent pupil, received, at the same time, the appointment of professor of harmony. Gossec, among other patriotic pieces, composed the hymn to Reason, and that for the feast of the Supreme Being, the apotheosis of Voltaire, and the funeral of Mirabeau. Napoleon gave him the cross of the legion of honour. Gossec composed much for the opera. His best production is Sabinus (1773). He laboured particularly in the sacred style. His requiem of 1760, and his oratorio *De la Nativité* are still esteemed. He wrote, in 1804, his *Méthode de Chant du Conservatoire*, and contributions, signed *D. C.*, for Catel's *Principes élémentaires de Musique suivis de Solfèges* (1800), a work to which also Cherubini, Méhul, Langlé and Lesueur contributed.

GOTHA; a Saxon duchy, on the north side of the Thuringian forest. The rivers are the Gera, Werra, Unstrat and Ilm. The dominions of the duke of Saxe-Gotha consisted of the duchy of Gotha, and the greater part of the principality of Altenburg, and amounted to 1106 square miles, with 193,000 inhabitants, of which Gotha contained 615 square miles, with 84,000 inhabitants. The revenue amounted to 1,500,000 guilders; the debt to 3,000,000 guilders. In 1825, Frederic IV., the last duke of Saxe-Gotha, died; and, according to the articles of partition of Nov. 5, 1826, the duchy of Gotha went to the duke of Saxe-Coburg, and the principality of Altenburg to the duke of Saxe-Hildburghausen, who is now styled *duke of Saxe-Altenburg*. The duchy of Gotha contains, at present, 582 square miles, with 83,000 inhabitants.

Gotha; capital of the duchy of Gotha, on the Leine, in a fine country, with 1340 houses and 13,000 inhabitants; lat. 50° 57′ 4″ N.; lon. 10° 43′ 1″ E. The museum opened in 1824, contains 150,000 vols., and many valuable manuscripts, a cabinet of coins (one of the best in Europe), with a fine numismatic library, the Oriental museum (of Seesen and Anthing), a museum of curiosities of nature and art, and a gallery of paintings, rich in the productions of the old German school. The seminary for teachers is the oldest in Germany. There is also a gymnasium, a Sunday school for apprentices and journeymen, and considerable manufactures and commerce. Near Gotha is situated the famous observatory on the Seeberg, erected by duke Ernest II., and endowed by him with 40,000 German dollars. When this institution was under the care of Von Zach and Von Lindenau, it was one of the first in Germany.

GOTHARD, St.; a high mountain of Switzerland, on the frontier of the cantons of Tessino and Uri, twenty-one leagues S. E. from Berne; lat. 46° 33′ N.; lon. 8° 30′ E. This mountain forms a remarkable point in the Alps, and unites the Leponine chain and that of Berne. The Reuss and Tessino rise here; the Rhine and Rhone not far from it. Its highest points are covered with perpetual snow, as the Fieudo, 10,150 feet high, the Fibia and the Lusendro, 10,430 feet; the Orsivro, or Peak of Ursern, 10,600 feet; and the Prosa, 9800 feet above the level of the sea. They are mostly granite, and contain a great variety of minerals. There are many small lakes on the St Gothard, and eight glaciers. A road traverses this body of mountains, connecting Germany and Italy. It existed as early as 1319, and gigantic obstacles were surmounted in its construction. It is mostly ten feet wide, sometimes fifteen; part is well paved with granite. Bridges of surprising boldness lead over terrible precipices. In one place, a gallery has been cut through a rock, for the distance of more than 200 feet, and with a height and width of nearly thirteen feet. It is called the *Urner Loch* (the hole of Uri). It was pierced in 1707, at the expense of the canton of Uri. The road is practicable in all seasons. In winter, the snow is sometimes twenty feet deep on the road, but the inhabitants of the neighbouring villages are obliged to keep the passage clear; in consequence of which they take toll from passengers during this season. From 15,000 to 20,000 travellers traverse the St Gothard annually, besides the many travellers whom curiosity leads over this mountain. More than 400 inhabitants of the Levantine valley, and that of the Reuss, subsist by transporting merchandise and travellers, by means of mules. On the top of St Gothard is an inn, where formerly was the *hospice* of the Capuchins, with an hospital and room to store merchandise. This point is 6339 feet, or, according to the map of Weiss, 4566, above the surface of the sea. This group of mountains received its name from a bishop of Hildesheim, who lived in the twelfth century. It was, in 1799, the theatre of several combats between the French and the Austrians, united with the Russians. Several works of great importance are still in progress on this mountain, the most remarkable of which is the road which traverses the Schallenen, in the canton of Uri. It is cut through enormous masses of granite, and the bridges are magnificent. There are 700 persons employed in this work. See *Alps*, *Roads over*.

GOTHIC STYLE. See *Architecture*.

GOTHS (the *Gothones* of Tacitus, and *Guttones* of Pliny, but not the *Gothini* of Tacitus, or *Gotini* of Dio, who were of Gallic origin); a German tribe, from the shores of the Baltic, between the Vistula and the Oder. Their language approaches very nearly to the ancient dialect of the Franks. Like all the Germans, they suffered their yellow hair to grow long, wore beards, and dressed in furs; but, contrary to the custom of the other Germans, the royal dignity among them was hereditary. They first appeared under the name of Goths, in 215. From this time, they filled all Europe with the fame of their exploits, for more than 500 years. Leaving their habitations on the Baltic, they removed to the

regions adjoining the Black sea. Many other tribes were incorporated with them, and by continual advances and conquests, they established under Ermenric (about 350), the great Gothic kingdom, extending from the Don, which divides Europe from Asia, to the Theiss, which empties itself into the Danube, and from the Black sea to the Vistula and the Baltic. It embraced Thrace, Mœsia (Servia and Bulgaria), Dacia (part of Hungary, the Bannat, the Bukowina, Transylvania, Walachia, Moldavia to the Pruth), large districts of Poland, Russia and Prussia; and, in the north, comprised the Sclavonic, Finnish and Lettish tribes. This situation naturally brought the Goths into continual contact, on the west, with the Roman empire, and, on the east, with that of Constantinople; and history is full of the struggles which they maintained, sometimes on the one side, sometimes on the other. Two emperors fell in battle with them, and Rome and Constantinople were both forced to pay them tribute. They were the first of the nations beyond the Danube, that received Christianity. Ulphilas, bishop of the Mœsogoths (the Gothic tribes which inhabited Mœsia), as early as 360, invented a German alphabet, and translated the New Testament into the Gothic language. All the Goths, however, were not equally advanced with those of Mœsia, among whom civilisation had made considerable progress, in consequence of their vicinity to the Greek empire, and continual intercourse with it. About the year 369, internal commotions produced the division of the great Gothic kingdom into the kingdom of the Ostrogoths (eastern Goths), on the shores of the Black sea, from the Don to the Dnieper, and the kingdom of the Visigoths (western Goths), or the Thuringian state in Dacia, from the Dnieper to the Danube. These internal storms were soon followed by one from without, which effected the subversion of the Gothic power in those parts. About the year 375, vast multitudes of the Huns, and of the Alans, who had been subdued by them, poured out of Asia, and drove the Ostrogoths in upon the Visigoths. They sought and obtained permission from the emperor Valens to settle in Thrace, at that time lying desolate; but were soon driven to rebellion by the oppression of the imperial governor. In the war which ensued, Valens himself was completely defeated by them, at Adrianople, in 378, and, in his flight, burned in a cottage, which they set on fire. From that time, they had an important influence in the affairs of Constantinople. After many vicissitudes, the Ostrogoths also obtained a settlement in Pannonia and Sclavonia, but not till the destruction of the kingdom of the Huns, in 453. The Visigoths, in process of time, obtained a degree of power which excited alarm in Greece and Italy. In 396, Alaric made an irruption into Greece, laid waste the Peloponnesus, and became prefect of Illyria and king of the Visigoths. He invaded Italy about the beginning of the fifth century, and by that measure brought on the destruction of the Roman empire, since Stilicho, the Roman general, could only obtain a victory over Alaric, at Verona (in 403), by withdrawing all the Roman troops from the borders of the Rhine. Alaric himself soon returned to Italy, and sacked Rome in 409, and a second time in 410. After his death (in 410), the Visigoths succeeded in establishing a new kingdom in the southern parts of Gaul and Spain (*Septimania, Gothia*), of which, towards the end of the fifth century, Provence, Languedoc and Catalonia were the principal provinces, and Toulouse the seat of government. The last king, Roderic, died (in 711) in battle against the Moors, who had crossed from Africa, and subsequently conquered the kingdom. After the fall of the Western Roman empire (by the invasion of Odoacer, in 476), the Eastern emperor, Zeno, persuaded Theodoric, king of the Ostrogoths, to invade Italy, in 489. The Goth became king of Italy, in 493, and laid the foundation of a new Ostrogothic kingdom, which, together with Italy, comprised Rhætia (a part of Switzerland and the Tyrol), Vindelicia (part of Bavaria and Suabia), Noricum (Saltsburg, Stiria, Carinthia, Austria), Dalmatia, Pannonia, (Farther Hungary, Sclavonia), and Dacia beyond the Danube (Transylvania, Walachia). This kingdom came to an end in 554.—This people, so famous in history, was not destitute of science and learning, having maintained a connexion with the Eastern and Western Roman empires, long before their irruption into Italy. Theodoric, who was educated at Constantinople, was such a friend to the fine arts, that he established the office of a *comes nitentium rerum* (count of the arts, overseer of the works of art), whose business was to watch over the statues, to see that they were not injured or stolen; and appointed a public architect, who was intrusted with the preservation of the ancient edifices. He not only caused various public buildings at Rome to be repaired, but also adorned other cities with new edifices. (For information on the Gothic architecture, see *Architecture*. See Gibbon's *Decline and Fall*; also Manso's *Geschichte des Ostgothischen Reichs in Italien*—History of the Ostrogothic Kingdom in Italy; Breslau, 1824.)

GOTTENBURG (in Swedish, *Gotheborg*); a large and thriving town in the south-west of Sweden, situated near the mouth of the large river called *Gotha-Elf*. It stands in a marshy plain, surrounded by precipitous ridges of naked rocks, rising to the height of from 100 to 300 feet, but intersected by several cultivated openings. The town is divided into Upper and Lower. The latter is perfectly level; the houses, owing to the marshiness of the ground, are all built upon piles. The principal street, called Great Harbour street, runs from E. to W., and divides the town into two nearly equal parts. The Upper town, from its situation, is built with less regularity; but it has an imposing appearance, the houses rising one above another, in the form of an amphitheatre. The only considerable public edifices of Gottenburg are, the exchange, the extensive buildings belonging to the East India company, an hospital, and a magnificent church, built since 1812, with stones from Scotland. The only curiosities of the place are a few private collections of paintings. The harbour is commodious for vessels of moderate size, and has a fort on a small, rocky island, to defend the entrance. It has manufactures of coarse linen and woollen stuffs, leather, sail-cloth, ropes, some silk and cotton goods, soap, tobacco; also sugar refineries. Iron and steel, furnished by the rich mines of Warmeland, form the principal articles of export; and, after these, herrings, linen, timber, tar, train oil, and alum. Here is a large provincial school, a mercantile academy, and an academy of sciences and literature, incorporated in 1775. The English language is pretty generally spoken here, the merchants being, many of them, English. Few places have suffered more from fire. The canal of Trolhatta (see *Canals*) promotes the commerce with the inner country. Gottenburg was founded by Charles IX., in 1607. Population, 24,000. Lon. 11° 57′ 45″ E.; lat. 57° 42′ 4″ N.

GOTTINGEN; a city in the kingdom of Hanover, on the Leine: 22 leagues S. S. E. of Hanover, 8½ leagues N. E. of Cassel; lat. 51° 31′ 49″ N.; lon. 9° 51′ 45″ E.; in a fertile valley, in the former principality of Kalenburg, now in the principality of Gottingen. Population, 10,000. There are manufactories of cloth, hosiery, linen, &c. The sausages of Gottingen are celebrated among epicures.

king George II. founded here, in 1734, the university of Georgia Augusta, which was opened in 1735, and dedicated Sept. 17, 1737. It is at present, also, the national university of Brunswick and Nassau; that is to say, every native of these latter countries must study, for a certain time, at Gottingen, if he wishes an employment in the gift of either government. The library of the university, the richest collection of modern literature in Germany, and perhaps in Europe, contains 300,000 volumes, and 5000 manuscripts. In 1751, the royal society of sciences was established, and remodelled in 1770. It comprises mathematical, physical, and historical classes; has members ordinary and extraordinary, resident and foreign, and holds a session monthly. The different classes propose, alternately, a prise of fifty ducats for the best treatises on certain subjects. In 1773, a museum was established, which, together with a cabinet of medals, contains a collection of specimens in natural history, and a considerable collection of models of various sorts, besides paintings, engravings, &c. Since 1784, each of the four faculties has proposed, annually, a prise question, for the students at Gottingen. The prise consists of a gold medal, of the value of twenty-five ducats. There are also a seminary for preachers, a divinity college and a pastoral institute, a clinical institute, a surgical and a lying-in hospital, an anatomical theatre, a botanical garden, a horticultural garden, a chemical laboratory, a collection of philosophical instruments, an observatory, a philological seminary, &c. In 1829, there were 1,264 students at Gottingen, and eighty-nine teachers proposed courses of lectures. In the summer of 1825, it counted 1,545 students. Several of the first German periodicals are published at Gottingen. The universities of Berlin and Gottingen are the most distinguished in Germany. Blumenbach, Eichhorn, Gauss, &c., are among the professors.

GOTTORP. See *Holstein*.

GOTTSCHED, JOHN CHRISTOPHER, born in 1700, at Juditenkirch, near Konigsberg, in Prussia, received from his father, who was a preacher there, his first instructions in the languages and the sciences, and entered the university of Konigsberg as early as 1714. His inclination soon turned from theology, to which he had been destined, to philosophy, the belles-lettres, and the languages. In 1724, he went to Leipsic, and delivered lectures on the belles-lettres, in which he attacked the then prevalent corruption of taste produced by the bombast of Lohenstein and his followers, and recommended the imitation of the ancients, and their professed followers, the French. In 1728, he published the first sketch of his Rhetoric, which he afterwards much enlarged, and, in 1729, for the first time his *Kritische Dichtkunst* (Critical Art of Poetry.) Both these works, unlike the books of instruction then in general use in Germany, condemn the disfigurement of the language by the use of foreign words, and oppose the taste for bombast in poetry, which then prevailed. In 1730, he was made professor of philosophy and poetry, published his Contributions towards a critical History of the German Language, Poetry, and Eloquence, and began his profitless exertions in behalf of the national drama. In 1734, he became professor of logic and metaphysics, and subsequently published his *Ersten Grunde der Weltweisheit* (First Principles of Philosophy). He died in 1766. Gottsched is an example of the degree to which a writer may sink by partiality and pedantry, even when his intentions are laudable and his merit considerable. These qualities have procured for him the reputation of a teacher of bad taste and false philosophy. The good effected by Gottsched is as apparent as his absurdity. His zeal for the good of the German language was of great use, and he at least perceived its genius, although he did not possess sufficient talents to exhibit its power in his own productions. This is his chief merit. He was by no means suited for a reformer of the German drama. He wished to extirpate the opera and comic opera, and to refine comedy by expelling from the stage the Merry Andrew, the amusing favourite of the multitude. He was even cruel enough, in conjunction with the stage-manager Neuber, to bury that honourable personage publicly, and with festive solemnities, in 1737. The pieces which he himself prepared for the stage were stiff and prosing.

GOUDA, or TERGOUW; a city of the Netherlands, in New Holland, on a branch of the Rhine called *Issel*, where it receives the river Gouw, which gives it its name; nine miles north-east of Rotterdam, twenty-two south of Amsterdam; lon. 4° 43′ E., lat. 50° N.; population, 11,379. It has extensive manufactures of tobacco pipes, also of porcelain, with a commodious port and a brisk trade, having boats passing regularly to Amsterdam, Hague, Rotterdam, Utrecht, &c. The great church is one of the handsomest and largest in the country, and is particularly celebrated for its painted glass windows, supposed to be the finest of the kind in Europe, and preserved with great care.

GOUGE; an instrument or tool used by divers artificers, being a sort of round hollow chisel for cutting holes, &c., either in wood or stone.

GOURD (*lagenaria vulgaris*), called also *calabash*, is a climbing plant, allied to the cucumber, melon, squash, &c., and belonging to the same natural family, *cucurbitaceæ*. The leaves are rounded, softly pubescent, and slightly viscous; the flowers, white, widely spreading, and somewhat stellated; the seeds, gray, with a tumid margin notched at the summit; the fruit, large, varying much in shape in different varieties, and has a hard and almost ligneous shell, of which, drinking cups, bottles, and other household utensils are made. The gourd was known to the ancients, having been cultivated from time immemorial in the warmer parts of Asia and Africa, and also by the aborigines of America, previous to its discovery by the Europeans. The pulp is edible, and the lower classes in Egypt and Arabia boil it in vinegar, or make it into a sort of pudding by filling the shell with rice and meat.

GOUT, or ARTHRITIS, a disease of adults, at sometimes regular, attended with the secretion of the superfluous earthy matter, which is no longer necessary for the formation of the bones; sometimes irregular, when the vital powers are weakened, and the superfluous bony matter, instead of being carried off by the organs of secretion, is deposited beneath the skin, or accumulates internally, thus producing chalk-stones and various internal concretions. There are two principal causes of the gout—bad diet and suppression of perspiration. Frequent use of wine, in particular of acid wines, as well as the daily use of very nourishing, fat, and high-seasoned food, contributes chiefly to the production of the disease, both from the excess of nutritive and earthy matter, and from its exciting effects on the blood; since so great a quantity of nutritive matter is not required by the fully developed body, and is not assimilated by the weakened organs of digestion. The disease, in these cases of undiminished vital powers, is called *podagra*, and returns at regular periods. (See *Podagra*.) In spring, in autumn, and with many much oftener, violent pains are felt in or near the joint of the great toe; the part becomes inflamed, red, and swollen. A fever is usually connected with it, if the local inflammation reacts upon the whole system of the blood. Among the poorer classes, who earn their bread by the sweat of their brows, and satisfy their

irst with water, the real gout is seldom met with; t even among these, overloading the stomach with or and badly cooked food, repeated exposure to old, an accumulation of half-assimilated matter in e blood, and suppressed secretion, sometimes pro- ce irregular gouty attacks, wandering pains, depo- tions of an extraordinary quantity of earthy matter the limbs, and striking deformities.

Gout or arthritis and rheumatism (q. v.) are fre- ently confounded, but they are very different in eir nature. Rheumatism attacks every age of life; out only adults. Rheumatism is an inflammatory ate of the system of muscles and tendons; in the out, this inflammation is in the joints, the capsular gaments, and the bones. Accordingly, in the for- er, the pain is rather seated in the muscles, spreads cording to their course, and is more changeable, respect to place; in the latter, the pains are in e joints and along the bones. Rheumatism is not companied with those earthy tumours and accumu- ations, which characterise the gout. In the latter isease, the sweat sometimes leaves a fine earthy dust pon the skin of the patient. Both diseases may, owever, be present in the body at the same time, nd be combined with each other. Rheumatism may lso change, with time, into the gout, if, with the dvancing age, the disease passes from the muscular ystems to the bones and joints. If nature is no onger vigorous enough to form a regular eruption f the gout, if the individual is old, or the disease is hecked in its course, it often attacks the internal arts, the stomach, the lungs, the brain, and may hus prove fatal.

Respecting the treatment of gout, the diet which s to be observed, &c., many erroneous opinions still revail. Some believe that, particularly in the po- lagra, no remedy ought to be taken; others trust ntirely to purgatives; others seek a remedy in bstinence and drinking water; others, misled by the heory of Brown, who placed the podagra entirely in the class of asthenic diseases, seek for a remedy in trong liquors. There is, however, no specific against gout. The treatment of the disease must be regu- lated by the judgment of a cautious physician, who carefully observes the age and the bodily constitution of the patient, his habits, the condition of the vital powers, the state of the arterial system, and the peculiar nature of the case. With one arthritic patient, for instance, bleeding, drinking of water, and the use of cooling means, may be very necessary, which, with another, may become injurious, nay, fatal; as may be the case, on the other hand, with exciting, diaphoretic and other means.

GOVERNMENT, Forms of. See *Estates and Political Institutions.*

GOVERNOR; a contrivance for equalising the motion of mills and machinery. When any part of the machinery of a mill is suddenly stopped, or sud- denly set a going, and the moving power remains the same, an alteration in the velocity of the mill will take place; and it will move faster or slower. Every machine having a certain velocity at which it will work to more advantage than at any other, the change of velocity arising from the foregoing cause, is in all cases a disadvantage, and in delicate opera- tions exceedingly hurtful. In a cotton-mill, for instance, which is calculated to move the spindles at a certain rate, if from any cause the velocity is increased, a loss of work immediately takes place, and an increase of waste, from the breaking of threads, &c.; on the other hand there must be an evident loss from the machinery moving slower than is necessary. Various contrivances are used for remedying this evil. See *Steam Engine.*

GOWER, John; an ancient English poet of the fourteenth century. He was liberally educated, and was a member of the society of the Inner Temple; and some have asserted that he became chief justice of the common pleas; but the more general opinion is, that the judge was another person of the same name. He particularly attached himself to Thomas of Woodstock, duke of Gloucester, uncle to Richard II., and wrote his principal work at the desire of that unfortunate monarch. He appears to have been in affluent circumstances, as he contributed largely to the building of the conventual church of St Mary Overy, in Southwark. He died at an advanced age, in 1402. He was buried in the church to which he was a benefactor, where his tomb is still to be seen. Gower abounded in the learning of the age, but has little claim to genius or invention; and is so uni- formly grave and sententious, even upon topics which might inspire vivacity, that his friend Chaucer styles him "the moral Gower." He was author of a tri- partite work, entitled *Speculum Meditantis; Vox Clamantis*, and *Confessio Amantis;* of which the first is a moral tract relative to the conjugal duties, writ- ten in French rhymes; the second a metrical chro- nicle of the insurrection of the commons under Richard II., in elegiac verse, and the third an Eng- lish poem in eight books, relative to the morals and metaphysics of love, which alone has been printed, and was one of the earliest products of the English press, being printed by Caxton in 1483. The lan- guage is tolerably perspicuous, and the versification often harmonious.

GOYAS; one of the capitanias of Brasil, which extends from 42° to 54° W. lon., and from 6° 30′ to 19° S. lat. Chief town, Villa Boa. Population estimated at 170,000. The chief business is search- ing for gold in the mines, which were first discovered in the year 1726.

GRACCHUS, Tiberius Sempronius, and Caius; two Romans, who, by undertaking to reform the republic, and to place the national welfare upon a firm basis, awakened popular commotions in Rome, of which they themselves became the victims. Tibe- rius Sempronius, who was about nine years older than his brother, was a man of great talents and dis- tinguished merit. Both he and his brother, having lost their father early, received from their excellent mother, Cornelia, the daughter of the great Scipio the elder, a careful education. At a more advanced age, their minds were formed and ennobled by the Greek philosophy. Their family was among the most distinguished in Rome. Tiberius early made himself conspicuous in the military service. Under the command of his brother-in-law, the younger Sci- pio, he served at the siege of Carthage, and was the first man who mounted the walls of the burning city. While he was yet a mere youth, he was received into the college of augurs—an honour usually conferred only upon distinguished statesmen. He was subse- quently questor to the consul Mancinus, who at that time waged war against the Numantines, in Spain— few in number, but brave, and attached to their liberty. Here the high character of the young Gracchus, even with the enemies of Rome, enabled him to conclude a treaty with the Numantines, which, without being disgraceful to the Romans, secured to the Numantines their independence. The Numan- tines even returned to the questor his accounts and papers, which they had taken among the Roman baggage, with touching marks of their esteem. But the Roman senate refused to ratify this treaty, and, to atone in some measure for this breach of the law of nations, decreed that all who had been concerned in its negotiation should be delivered up to the Nu- mantines. They also sent the younger Scipio, with a new army, against Numantia. The high character

others, an essential part of the creed of the reformed church. The evangelical Lutherans, on the other hand, in their Form of concord, admitted that God had ordained all men to eternal felicity, but knew beforehand who would render themselves unworthy of it, and, consequently that election concerned only really good men, and would be the cause of their salvation.

In the mean time, however, the Catholics had not come to an agreement concerning this dogma. This appears from the quarrels of the Dominicans and Jesuits, the latter of whom, on account of their moderate views of the doctrine of election and the power of free will, were charged by the former with Pelagianism. This was particularly the case with the Jesuit Lewis Molina, in 1588, from whom the Molinistic disputes in the Netherlands received their name.

In the seventeenth century, also, two new parties, which had their origin in the dispute concerning the doctrine of predestination, sprang up in the Netherlands, namely, the Arminians (q. v.), or Remonstrants, among the Protestants, and the Jansenists among the Catholics. The former held to a universal and conditional divine predestination for the salvation of all men, in opposition to the strict Calvinistic party, from whom, in 1610, they formally separated themselves. The latter, in consequence of the revival of the Augustinian system of doctrines by bishop Jansen (who died in 1638), in a dispute with the Catholic church, which was then under the influence of moderate Jesuits, adopted the idea of a twofold and absolute divine predestination for the salvation and damnation of men. From that time the members of the christian church have continued to differ upon this subject.

GRACE, DAYS OF; three days immediately following the time of payment of a bill, within which the creditor must protest, if payment is not obtained, in order to entitle him to recover the amount by legal proceedings against the drawer, accepter, and indorser—one or all.

GRACES (*Gratiæ* and *Charites*); the goddesses of grace, from whom, according to Pindar, comes every thing beautiful and agreeable, through whom alone man becomes wise and glorious. According to Hesiod, and most poets and mythologists, Jupiter was their father. Hesiod calls their mother Eurynome; and most of the ancients agree with him in this point. The Lacedæmonians and Athenians, at first, knew of but two Graces, whom the former called *Phaënna* (the brilliant) and *Kleta* (the glorious); the latter, *Hegemone* (the leader) and *Auxo* (the propitious). King Eteocles introduced the worship of three Graces among the Orchomenians, and Hesiod gives them the names of *Aglaia* (brilliancy), *Thalia* (the blooming) and *Euphrosyne* (mirth). Homer mentions them, in the Iliad, as handmaids of Juno, but in the Odyssey, as those of Venus, who is attended by them in the bath, &c. He conceived them as forming a numerous troop of goddesses, whose office it was to render happy the days of the immortals. According to Hesiod, they were an emblem of the disposition to please, and to render social intercourse agreeable, by gayety and politeness. Later poets considered them as allegorical images. But the Graces always appear as attendant, never as ruling deities. They do not conquer hearts, but Venus conquers them through the Graces; they do not adorn themselves, but they adorn Venus. They not only improve corporeal charms, they have an influence, also, upon music, eloquence, poetry, and other arts; and the execution of acts of benevolence and gratitude is likewise superintended by them. In the earliest times, the Graces were represented entirely covered; the gold statues of Pupalus in Smyrna, and the marble ones of Socrates, at the entrance of the Acropolis, at Athens, represented them clothed. The same was the case with the statues in the temple of Elis. One of them held a rose, another a branch of myrtle (symbols of beauty and love), the third a die (the symbol of sportive youth). In later times, they were represented naked. They had many temples in Greece, partly dedicated to them alone, partly in common with other deities, particularly Venus, the Muses, Cupid, Mercury and Apollo. Their festivals were called, in Greece, *Charisia*. It was customary to swear by the Graces, and libations of wine were offered them at meals. The most celebrated Graces of modern sculpture are those of Canova and Thorwaldsen, productions which would alone render those two great artists immortal.

GRACIOSO; the theatrical name for a Spanish buffoon or droll, a masked personage; a standing character in Spanish pieces, like the *Hanswurst* of the German comedy, or the English *Merry Andrew*. This character occurs under different names, in all three species of the Spanish comedy, but especially in the pieces of intrigue (*comedias de capa y espada*). The gracioso so far resembles the harlequin of the elder comedy, from whom some derive him, that he is sometimes plump and gormandising; but other traits—his loquacity and cowardice—are peculiar to him. His pattern is rather to be found in the Sosias of Plautus, or in the Davus, or other characters of slaves, in Terence. The Spanish poets throw in secondary traits of character in great variety, making the gracioso sometimes very cunning and dexterous, and at others, again, ridiculously silly. In some pieces, a second gracioso (*gracioso segundo*) makes his appearance, and even more have been introduced. These masked personages are rarely used as agents to involve the plot by their intrigues, but are principally employed as merry servants to parody the motives that actuate their master, which they often do in a most agreeable and witty way. In the plays of Augustin Moreto y Cabana especially, this part is remarkable for happy strokes of wit.—In music, *gracioso* is the direction to give a passage a soft agreeable expression.

GRÆCIA MAGNA. See *Magna Græcia*.

GRÆVIUS, or GRÆFE, JOHN GEORGE; a learned classical scholar, born at Naumburg, in Saxony, in 1632. Such was his ardour for study, that, while at school, he sometimes passed the greater part of the night in reading the works of Homer and Hesiod. He then went to the university of Leipsic, and afterwards to Amsterdam. At the age of twenty-four he was appointed professor at Duisbourg, and subsequently succeeded John Frederic Gronovius, at Deventer. Thence he was invited, by the states of Utrecht, to become professor of politics, history, and rhetoric in their university, which station he filled with great reputation during forty-one years; he also held the office of historiographer to the king of Great Britain, William III. He died in 1703. His literary productions consist of valuable editions of the Epistles and Orations of Cicero, and of the works of Florus, Cæsar, Suetonius, Hesiod, &c.; besides two large and valuable collections—*Thesaurus Antiquitatum Romanarum* (12 vols., folio), and *Thesaurus Antiquitatum et Historiarum Italiæ* (6 vols., folio), afterwards continued by Peter Burmann. Grævius displayed little of the pedantry and arrogance which too often deform the character of the critic, and was deservedly esteemed both as a man and a scholar.

GRAFTING; the act of inserting a shoot or scion taken from one tree, into the stem or some other part

another, in such a manner that they unite, and oduce fruit of the kind belonging to the tree from hich the scion was taken. By this practice, partiular sorts of fruit may be kept from degenerating, hich they are very apt to do when raised from the ed; for the grafts, though they receive their nouishment from the stocks, always produce fruit of the me sort as the tree from which they were taken. his process, probably from the abundant supply of ourishment afforded to the graft, has the advantage f hastening the period of its bearing. On this ccount, many sorts of fruit-trees are principally ised in this way, as well as some ornamental plants f the tree and flower kind. It also affords the means f raising different varieties of the same kind of uits and flowers on one stock.

GRAHAM, George, a celebrated clock and watch aker, and one of the most accurate artists of his ay, was born at Kirklinton, in Cumberland, in 1675. le was received into the family of the celebrated ompion, and became the inventor of several astronomical instruments, which much advanced the progress of science. He was a member of the royal ociety, and constructed the great mural arch in the bservatory at Greenwich. He also composed the hole planetary system within the compass of a small abinet, from which model all succeeding orreries ave been formed. Several of his papers are in the hilosophical Transactions. He died in 1751.

GRAHAM, James. See *Montrose, marquis of.*

GRAHAM, James, the author of "The Sabbath," "The Birds of Scotland," and other poems, was born n Glasgow, on the 22d April, 1765. After passing hrough a regular academical course of education at he university of his native city, he was removed to Edinburgh, for the purpose of studying law, and, in 1791, he was admitted a member of the society of Writers to the Signet. As his father stood at the head of the legal profession in Glasgow, his prospects of success in business were considerable; but, from early life, he entertained a dislike to the law, and aspired to the distinction of becoming a clergyman. He, however, did not give way to his desire for many years; for, in 1795, we find him admitted to the Faculty of Advocates, of which learned body he continued a member until 1809, when he entered holy orders as a clergyman of the church of England. Previous to this, all his literary productions had been published. While at the university, he printed and circulated a collection of poetical pieces. These appeared in an amended form in 1797. In 1801, he published a dramatic poem entitled, "Mary, Queen of Scotland," and, in 1802, appeared, anonymously, "The Sabbath." "The Birds of Scotland" and "British Georgics" followed.

After his ordination, he obtained the curacy of Shefton, in Gloucestershire, which he held for half a year, when he was recalled to Scotland by family affairs. While in Scotland, he was an unsuccessful candidate for St George's episcopal chapel, Edinburgh. In August, 1810, he was appointed interim curate to the chapelry of St Margaret, Durham, where his eloquence as a preacher quickly collected a large congregation, and after having officiated there for a few months, he obtained the curacy of Sedgefield, in the same diocese. The clerical profession did not afford him that measure of happiness which he had anticipated. His health failed him, and he was advised to seek his native air. He, therefore, proceeded with his wife to Glasgow, but had only arrived there two days, when he expired, at the residence of his eldest brother, Mr Robert Graham of Whitehill, on the 14th of September, 1811, leaving two sons and a daughter.

How deeply he loved, and how fondly he rejoiced to return to his native land, he has finely expressed in the following lines:—

"How pleasant came thy rushing, silver Tweed,
Upon mine ear, when, after roaming long
In southern plains, I reach'd thy lovely banks!
How bright, renowned Sark, thy little stream,
Like ray of column'd light chasing a shower,
Would cross my homeward path! How sweet the sounds,
When I, to hear the Doric tongue's reply,
Would ask thy well-known name!"

Mr Graham's poetry is chiefly of a meditative and religious cast, but animated, flowery, and descriptive. His character was marked by great gentleness of disposition and simplicity, and his personal appearance was strikingly handsome. He inherited from his family strong Whig principles, which he entertained to the last; and, in connexion with this it may be mentioned, that, in 1832, his venerable brother, Mr Graham of Whitehill, who had always been foremost in the cause of the people, was elected Lord Provost of Glasgow, being the *first* Lord Provost of that city under the Scots Burgh Reform Bill—a bill which gave the citizens a voice in the election of their magistracy.

GRAIN; the name of a small weight, the twentieth part of a scruple in apothecaries' weight, and the twenty-fourth of a pennyweight troy.

GRAIN includes all those kinds of grass which bear a straw, and which are cultivated on account of their seeds for the production of meal or flour. The word *corn*, or its equivalent in other languages, is frequently applied exclusively to that kind of grain which constitutes the chief nourishment of the country: thus, in a great part of Germany, it is rye; in France, it is wheat; in the Low Countries, it is spelt (a sort of wheat); and in North America, it is maize. That the different kinds of grain grow wild in some countries, is well known, as, for example, barley and oats in Germany; but they have not the perfection of our cultivated grains. These all seem to be natives of warmer climates in Asia, Africa, America (South), and to be annual plants, becoming hybernating only from cultivation, since a summer does not suffice, in northern climates, for their development. In common with most grasses, they form their stalks or stems upon the lower joints of the root. Their fascicular roots spread themselves out chiefly upon the surface of the ground, which they almost cover with their thick web, while a smaller part penetrates deeper, when they find looseness of soil and nourishment to attract them. All kinds of grain contain nutritious particles of a similar character, although they vary, both in their quantity and in their mixture, in various grains. These elements are,—1. gluten (q. v.), which affords the strongest nourishment for the animal body; 2. fecula or starch (q. v.), which is very nutritious, although not so much so as gluten, which, however, it seems to render more digestible; 3. a sweet mucilage, which is more nutritious than starch, but is small in quantity, and renders the grain liable to the vinous and acetous fermentation; 4. the hulls, which consist of a fibrous matter, and contain a digestible, aromatic substance; 5. moisture, which is predominant even in the dryest grain, and increases the weight of the mass, although it lessens the specific gravity; it affords no nourishment, hastens the decomposition of all kinds of grain, if they are not kept very dry, and serves, after planting, to stimulate the first motions of the germ.

GRAINGER, James, a physician and poet of the last century, was born at Dunse, in Berwickshire, in 1724. His father placed him as a pupil with a surgeon at Edinburgh, where he attended the medical lectures at the university. Having finished his studies, he entered the army as a regimental surgeon, and served in Germany till 1748; after which he took

the degree of M. D., and settled in the metropolis. An Ode to Solitude procured him reputation in the literary world. In 1759 he published a translation of the Elegies of Tibullus. He then went to the West Indies, with a young gentleman to whom he had become tutor, and, on his arrival at Basseterre, in the island of St Christopher, married the daughter of the governor. He engaged in medical practice at that place, and was very successful. His leisure was devoted to poetry; and he produced a didactic poem, in blank verse, entitled the Sugar Cane, and Bryan and Pereene, a ballad. The former he published in 1764, during a visit to Britain. He then returned to Basseterre, where he died of an epidemic fever, in 1767.

GRAMMAR. See *Language*.

GRAMME; the unit of weight in France, which has taken the place of the *gros*; equal to 15·434 grains Troy; 453,544 grammes, making one pound avoirdupois. All weights are formed from it by multiplication or division: for instance, the *decagramme*, a weight of 10 *grammes*, which is equal to 6 drams, 10·44 grains; the *hectogramme*, a weight of 100 *grammes* (3 os. 4 dr. 8 gr.); the *kilogramme*, a weight of 1000 *grammes* (about 2 lbs. 8 os.); the *myriagramme*, a weight of 10,000 *grammes* (about 26 lbs. 9 os). The *decigramme* is a tenth of a *gramme*, or one grain and fifty-four hundredths; the *centigramme* is one hundredth of a *gramme*, or ·154 of a grain; the *milligramme* is a thousandth part of a *gramme*, or ·0154 of a grain: it supplies the place of the *carat*.

GRAMMONT, PHILIBERT, count of; son of Anthony, duke of Grammont. He served under the prince of Condé and Turenne, but, having rashly paid his addresses to a lady who was a well-known favourite of Louis XIV., he was obliged to quit France, and went to England two years after the restoration. He was highly distinguished by Charles II., possessing, with a great turn for gallantry, much wit, humour, politeness, and good nature. He seems to have been indebted for his support chiefly to his profits at play, at which he was very successful. He married Miss Elisabeth Hamilton, daughter of Sir George Hamilton, and died in 1707? His celebrated Memoirs were written by his brother-in-law, Anthony, generally called count Hamilton, who followed the fortunes of James II., and afterwards entered the French service, and died in 1720.

GRAMPIAN MOUNTAINS; a chain of mountains in Scotland, which, stretching like a mighty wall along the southern front of the Highlands, extends across the island, from the district of Cowal, in the shire of Argyle, on the Atlantic, to Aberdeenshire, on the German ocean; and then, forming another ridge in a north-westerly direction, extends to the county of Moray, and the borders of Inverness. Their general height is from 1400 to 3500 feet above the level of the sea; and several peaks rise considerably higher. The height of Benlomond, in Dumbartonshire, is 3262; of Ben Ledi, 3009; Ben More, 3903; Ben Lawers, the chief summit, 4015; Shechallion, 3564; and Ben Voirlich, 3300.

GRANADA; an extensive maritime province, in the south of Spain, nearly 200 miles in length, and varying from forty to seventy in breadth. Its length is nearly from E. to W., having on the S. the Mediterranean, on the N. a part of Andalusia; its south-west extremity approaches Gibraltar. Among the mountains, a calcarious soil, in many places unproductive, is prevalent; but the valleys contain a rich and fertile mould. The Viga (orchard) de Granada, where the capital is situated, is one of the richest and most delightful spots in the world. This fertility is owing chiefly to the copious streams that flow from the mountains in summer, on the melting of the snow. Vines are cultivated on the sides of the hills, but the wine is indifferent. Silk is more attended to. Along the coast are raised indigo, coffee, and sugar.

GRANADA; a celebrated city in the south of Spain, and capital of the province of that name. The situation is highly romantic. The town exhibits to the approaching traveller the form of a half-moon, its streets rising above each other, with a number of turrets and gilded cupolas, the whole crowned by the Alhambra, or palace of the ancient Moorish kings, and, in the back ground, the Sierra de Nevada, covered with snow. But, on entering the gates, all this grandeur disappears; the streets are found to be narrow and irregular; the buildings display visible marks of decay, and are inferior to those of many other towns in Spain. Granada is built on two adjacent hills, and divided into four quarters. The river Darro flows between the two hills, and traverses the town, after which it falls into the larger stream of the Xenil, which flows outside the walls. In point of extent, Granada is nearly as great as in the days of its prosperity. The cathedral is an irregular but splendid building; the archbishop's palace is also extensive and elegant; likewise the mansion occupied by the captain-general of the province. But the grand ornament of Granada is the Alhambra. Though now, like the town, in a state of decay, its remains sufficiently show its original splendour. It commands a beautiful prospect; but a still finer is afforded by another Moorish palace, called the *Generaliffe*, built on an opposite hill, and the retreat of the court during the heat of summer. Granada has various manufactures, such as silk and woollen stuffs; it has also a tannery, and a manufactory of gunpowder and saltpetre. Granada is the seat of a university. Population, 66,600; 123 miles E. Seville; 224 S. Malaga; lon. 3° 46′ E.; lat. 37° 16′ N.

GRANADE. See *Grenade*.

GRAND BANK OF NEWFOUNDLAND; lon. 49° 45′ to 54° 45′ W.; lat. 41° 50′ to 50° 24′ N. This noted fishing-bank extends from N. to S., and is almost of a triangular shape. Between it and the island on the west, there is a broad channel of deep water. About 3000 small vessels, belonging chiefly to Great Britain and America, are annually employed in the cod-fishery on this bank.

GRANDEE. In the kingdom of Castile, and in that of Arragon, there was a distinction of rank among the nobles of the country, who belonged partly to the higher, and partly to the lower, nobility. The *ricos hombres* (literally, *rich men*) made up the former; the knights (*caballeros*) and gentlemen (*hidalgos*) the latter. The circumstances of the establishment of the new Christian states which were founded and enlarged amid perpetual struggles against the Moors, procured an important share in the public affairs, for the descendants of the men who constituted the first armed associations for the deliverance of their country. These were the higher nobility. They limited the power of the king; they surrounded him, as his counsellors, by birthright, and had a priority of claim to the highest offices of state. As early as the thirteenth century, these rights were legally recognised as belonging to certain noble families, which had gained the respect of the people by their opulence and long possession of the favour of their princes; and even the name *grandee* occurs, about that age, in the code of laws (*las siete partidas*) which Alfonso X. established in the kingdom of Castile. This distinction belonged only to the principal members of the higher nobility, as many were reckoned in this class who were not called grandees. But none were called grandees, who were not *ricos hombres*, i. e., descended from a family of the ancient nobility. The grandees consisted partly of the

relatives of the royal house, and partly of such members of the high feudal nobility, distinguished for their wealth, as had, by the grant of a banner, received from the king the right to enlist soldiers, under their own colours, and had thus acquired precedence of the other *ricos hombres*, which distinction regularly descended to their posterity. As *ricos hombres*, they partook of all the privileges of the high nobility: as such, they possessed certain feudal tenures (called *royal fiefs* or *lordships*), in consideration of which they were bound to serve the king with a proportionate number of lances (each of which consisted of a horseman with four or five armed attendants); these fiefs they could be deprived of only in certain cases determined by law. They were free from taxes, on account of serving the king with their property and persons in war. They could not be subjected to the jurisdiction of any civil or criminal judges, without the special commission of the king. They might, at any time, during the anarchy of the middle ages, leave the kingdom, together with their vassals, without hinderance, and withdraw themselves from the laws and feudal service of their country, and join another prince, even against their former sovereign, without being considered traitors on that account. Besides these general prerogatives of the higher nobility, and the priority of claim to the highest offices of state, the grandees possessed some peculiar distinctions. Such, in particular, was the right of covering the head in the presence of the king, with his permission, on all public occasions—an ancient privilege among the Spaniards, which had its origin in the spirit of a limited feudal monarchy: this, however, was conceded also to the (so called) *titulos* (titled personages, viz., dukes and counts). The king called each of them "my cousin" (*mi primo*), while he addressed the other members of the high nobility only as "my kinsman" (*mi pariente*). In the cortes, they sat immediately after the prelates, before the *titulos*. They had free entrance into the palace and apartments of the king, and, on festival occasions, sat in the royal chapel near the altar. Their wives participated in the external marks of respect belonging to the rank of their husbands: the queen rose up from her seat to receive them, and cushions were laid for them upon an elevated settee (*estrada*). After Ferdinand and Isabella, guided and assisted by the able Ximenes, crushed the power of the feudal nobility, the privileges of the higher nobility were diminished; and, at the close of the fifteenth century, the name of the *ricos hombres* was lost, together with their privileges. Though Ferdinand's successor, Charles V., was little inclined to give up the struggle for unlimited power, he nevertheless found many inducements to attach some of the principal men of the kingdom to himself, and to reward others for the important services which they had rendered him in the suppression of the insurrection of the commons. The rank which ancient custom had fixed in the respect of the people, he distinguished by the name of *grandezza*, and raised to be a particular order of nobility, the prerogatives of which consisted mostly in external marks of distinction. Thus he avoided reviving the power possessed by the feudal nobility in early ages, and completed what had been begun under Ferdinand and Isabella, by making of an independent feudal nobility a dependent order of court nobles. There were three classes of grandees. Some the king commanded to be covered before they spoke to him: these were grandees of the first class. Others received the command as soon as they had spoken, and so heard his answer with their heads covered: these were grandees of the second class. Others again did not receive the king's command to be covered until after he had answered them: these were grandees of the third class. Latterly, it is true, these distinctions of rank became antiquated; but there were still three classes of grandees, although without any essential differences. They all enjoyed, up to the time of the last revolution, besides the above-mentioned privileges, that of being called *excellency*, and that of having a stamp given with the foot, when they entered the royal palace through the hall of the guards, by way of notice to the sentinel to present arms to them. They had no other marks of distinction from the rest of the high nobility. They did not constitute a particular society, as did formerly the dukes and peers in France; and no high offices were exclusively appropriated to them, except, perhaps, the mastership of the horse, the lord-chamberlainship, and the captaincy of the halberdier guard, might be so considered. In truth, the royal will was not subjected to any limits in the nomination even to these court-offices.

GRANITE is considered as the foundation rock of the globe, or that upon which all secondary rocks repose. From its great relative depth, it is not often met with, except in Alpine situations, where it presents the appearance of having broken through the more superficial strata of the earth, the beds of other rocks in the vicinity rising towards it at increasing angles of elevation as they approach it. It is composed of three minerals, viz., quarts, feldspar, and mica, which are more or less perfectly crystallized and closely united together. They vary considerably in the relative proportions in which they exist, in the granites of different localities, as also in the size of the grains; but feldspar is usually the predominating ingredient. Granite has been divided into several subspecies, or varieties; of these, the following are the most important: *Common granite*, in which the three ordinary constituents above mentioned occur in nearly equal proportions; the feldspar may be white, red or gray. *Porphyritic granite*, in which large crystals of feldspar are disseminated through a common granite, whose ingredients are fine-grained. *Graphic granite*, which consists of feldspar in broad laminæ, penetrated, perpendicularly with long, imperfect crystals of quarts, whose transverse angular sections bear some resemblance to certain letters, especially to those of Oriental languages. *Sienite* or *sienitic granite*, in which hornblende, either wholly or in part, supplies the place of mica. *Talcky* or *chloritic granite* (the *protogine* of the French), in which talc or chlorite takes the place of the mica. *Feldspathic granite* (the *white-stone* of Werner, and the *eurite* of the French), in which feldspar is the principal ingredient.

Granite occurs in masses of vast thickness, which are commonly divided, by fissures, into blocks that approach to rhomboidal or tolerably regular polyhedral forms. In some instances, however, it affects a laminated structure, owing to the preponderance of mica, and its arrangement in layers. When this is the case, it passes into the rock called *gneiss*. (q. v.) The aspect of granitic mountains is extremely diverse, depending, in part, upon the nature of its stratification, and the degree of disintegration it has undergone. Where the beds are nearly horisontal, or where the granite, from the preponderance of feldspar, is soft and disintegrating, the summits are rounded and heavy. Where hard and soft granite are intermixed, in the same mountain, the softer granite is disintegrated, and falls away, leaving the harder blocks and masses piled in confusion upon each other, like an immense mass of ruins. Where it is hard, and the beds are nearly vertical, it forms lofty pyramidal peaks or *aiguilles*, like the Aiguille de

Duc and others, in the neighbourhood of Mont Blanc.

Granite forms some of the most lofty of the mountain chains of the eastern continent. In Europe, the central part of the principal mountain ranges is of this rock, as in Scandinavia, the Alps, the Pyrenees, and the Carpathian mountains. In Asia, granite forms a considerable part of the Uralian and Altaic ranges of mountains; and it appears, also, to compose the principal mountains that have been examined in Africa; whereas, in the western hemisphere, it has never been observed rising to such great elevations, or composing such extensive chains. It is, nevertheless, very abundantly distributed over the northern parts of the American continent, as in Labrador, the Canadas, and the New England states. In New Hampshire, it is the predominating rock of the White mountains, in which it attains the elevation of more than 6000 feet. In the Andes, it has been observed at the height of 11,000, but is here generally covered by an immense mass of matter, ejected by ancient and recent eruptions.

Granite very frequently forms veins, shooting up into the superincumbent rocks, which seems to indicate that it has existed below in a state of fusion, the heat of which has softened and parted the upper rocks, and forced up the granite, in a melted state, into these fissures. Instances of this kind are very frequent in New England, where the strata of mica-slate, and of gneiss, are parted by perpendicular dikes or veins of granite, which sometimes are seen shooting up far above the intersected rocks, the strata of which, in the immediate vicinity of the veins, are bent upwards, proving, in the most satisfactory manner, that these masses of granite have been protruded from below, and not infiltrated from above, as was once imagined.

Granite abounds in crystallized earthy minerals; and these occur for the most part, in those masses of it existing in veins. Of these minerals, beryl, garnet and tourmaline are the most abundant. It is not rich in metallic ores, though it contains the principal mines of tin, as well as small quantities of copper, iron, tungsten, bismuth, silver, columbium and molybdenum.

Granite supplies durable materials for architecture, and for decoration. It varies much in hardness, as well as in colour; accordingly, there is room for much care and taste in its selection. The *Oriental basalt*, found in rolled masses, in the deserts of Egypt, and of which the Egyptians made their statues is a true granite, its black colour being caused by the presence of hornblende and the black shade of the mica. The original statue of the Nile, which was placed in the temple of peace, at Rome, was made from this granite. The *Oriental red granite*, which is chiefly found in Egypt, is composed of large grains, or imperfectly formed crystals, of flesh-coloured feldspar, of transparent quarts and of black hornblende. Like the Oriental basalt, it is susceptible of a fine polish. Of the remarkable monuments of antiquity constructed of this beautiful granite, Pompey's pillar and the two famous obeliaks at Alexandria, called *Cleopatra's Needles*, are the most celebrated. The former of these is eighty-eight feet in height, and nine feet in diameter at its base; it is formed of but three pieces. In modern times, however, granite is less employed in architecture than formerly; the softer and more easily quarried rocks are preferred.

GRANT, in law; a gift in writing of such a thing as cannot be passed or conveyed by word only, as a grant is the regular method, by the common law, of transferring the property of incorporeal hereditaments, or such things whereof no actual delivery of possession can be had. The operative words in grants are *dedi et concessi* (I have given and granted). Grants may be void by uncertainty, impossibility, being against law, or a mode to defraud creditors, &c.

GRANTHAM, a small borough town in Lincolnshire, which returns two members to parliament. Population in 1831, 7427.

GRANULATION; the method of dividing metallic substances into grains or small particles, in order to facilitate their combination with other substances, and sometimes for the purpose of readily subdividing them by weight. This is done either by pouring the melted metal into water, or by agitating it in a small box until the moment of congelation, at which instant it becomes converted into a powder.

Granulation (*granulatio*, from *granum*, a grain), in surgery. The little, grain-like, fleshy bodies which form on the surfaces of ulcers and suppurating wounds, and serve both for filling up the cavities and bringing nearer together and uniting their sides, are called *granulations*. Nature is active in bringing parts, whose disposition, action and structure have been altered by accident or disease, as nearly as possible to their original state; and, after having, in her operations for this purpose, formed pus, she immediately sets about forming a new matter upon surfaces, in which there has been a breach of continuity. This process has received the name of *granulating* or *incarnation*. The colour of healthy granulations is a deep florid red. When livid, they are unhealthy, and have only a languid circulation. Healthy granulations, on an exposed or flat surface, rise nearly even with the surface of the surrounding skin, and often a little higher; but when they exceed this, and assume a growing disposition, they are unhealthy, soft, spongy, and without any disposition to form skin. Healthy granulations are always prone to unite.

GRANVELLA, Antoine Perrenot, cardinal de, a minister of state to Charles V. and Philip II., was born, in 1517, at Ornans, in the county of Burgundy. He studied first at Padua, and afterwards applied himself to theology at Louvain. He was subsequently initiated in state affairs by his father. Acquainted with seven languages, so as to speak them with facility, endowed with uncommon penetration and perseverance, and having a prepossessing person and pleasing manners, he gave the reins to his ambition, to which no office in the state appeared too high. In his twenty-third year, he was appointed bishop of Arras, and accompanied his father to the diet at Worms and Ratisbon, where the labours of both were fruitlessly employed in negotiations for the suppression of the religious commotions of the times. He also assisted at the opening of the council of Trent, and endeavoured to engage the forces of Christendom in the war against France. When the Protestants, after the defeat at Muhlberg, sued for peace, Granvella was commissioned to draw up the conditions, and, in doing so, deceived, it is said, the landgrave of Hesse, who remained a prisoner, though he had been assured of his liberty. About the same time, he effected the capture of Constance from the Protestants by surprise. In 1550, he was made counsellor of state, and had charge of the great seal. In 1552, when the emperor, having been surprised by Maurice of Saxony in the Tyrol, fled from Innspruck, by night, in a litter, Granvella accompanied him with lance in rest. The treaty of Passau, concluded soon after that event, which delivered Germany, certainly does great honour to Granvella. In 1553, he negotiated the marriage of don Philip with Mary, queen of England. In 1556, he made answer, in the name of Philip, to the speech of

Charles V. before the states of Flanders, at his abdication, and spoke in a manner worthy the occasion. The armistice of Vaucelles had established peace between France and Spain for five years. Henry II., king of France, infringed it. Granvella renewed the negotiations, and finally procured a treaty of peace, which he signed at Chateau-Cambresis, in 1559. Philip immediately after quitted the Netherlands, which were already in a state of great commotion, leaving Margaret of Parma as governor, and Granvella as her minister. This post necessarily brought upon him the hatred of the people, as all harsh and forcible measures were charged to him, while, at the same time, his enemies represented to Philip, that his weakness and mildness favoured the advancement of the new opinions. Philip, however, knew better the abilities of his minister, and appointed him to the archbishopric of Mechlin. His zeal for the re-assembling of the council of Trent, and for the suppression of Baianism, procured him a cardinal's hat. Granvella's enemies did not, on that account, desist from uttering their complaints against him, and even succeeded in prejudicing the weak Margaret against him, and at length, in 1564, obtained the commands of Philip for his return to Franche Comté. Margaret soon discovered her error in depriving herself of such a faithful minister, and sought, but in vain, to procure his return. Granvella spent the next five years in study and the society of learned men. He was a member of the conclave which elected Pius V. to the popedom. In 1570, Philip sent him once more to Rome, to conclude an alliance with the pope and the Venetians against the Turks. These last threatened Naples, whither Granvella was sent as viceroy. In circumstances involving so much difficulty, he not only took proper measures for defence, but also made many excellent regulations for the internal welfare of the state; and Naples had reason to anticipate great advantages from his ability and uprightness, when in 1575, he was recalled to the council of state. Philip, eager to have the credit of governing by himself, merely gave Granvella the title of *president of the supreme council of Italy and Castile*, so that the cardinal was not in name, although in reality, prime minister. In this capacity, he negotiated the union of Portugal with Spain; witnessed the insurrection in the Netherlands, which he had foreseen; and concluded a marriage between the infanta Catharine and the duke of Savoy, which was a master-stroke of policy, as it counteracted the plans of France with regard to Milan. In the midst of this incessant occupation, he died, in 1586, of consumption. Whatever opinion may be formed of Granvella, all will agree, that he was indefatigable, firm in his resolutions, sharp-sighted, high-principled, irreproachable in his administration, moderate even towards the weakest of his enemies, and steadily active in the cause of Spain and his religion.

GRAPE. See *Vine*.

GRAPE-SHOT is a combination of small shot, put into a thick canvass bag, and corded strongly together, so as to form a kind of cylinder, the diameter of which is equal to that of the ball adapted to the cannon. The number of shot in grape varies according to the service or size of the guns.

GRAPHITE. See *Plumbago*.

GRAPLING, FIRE; an instrument nearly resembling the grapnel, but differing in the construction of its flukes, which are furnished with strong barbs on its points. These are usually fixed by a chain on the yard-arms of a ship, to grapple any adversary whom she intends to board, and are particularly requisite to fire-ships.

GRAPNEL, or GRAPLING; a sort of small anchor, fitted with four or five flukes or claws, and commonly used to fasten boats or other small vessels.

GRASSES; a very large and very natural family of plants, distributed over the whole earth, and comprising many of the most useful of all vegetables, as wheat, rye, barley, oats, rice, Indian corn, and the sugar-cane, besides a vast many species suitable and employed for fodder. The whole family of ruminant animals is mainly dependent for subsistence on different species of grass. The roots of these plants are fibrous; the stems or culms cylindrical, provided at intervals with knots, from each of which arises a long linear or lanceolate leaf, sheathing the stem for some distance; the flowers are produced from the superior sheaths, supported on a common peduncle, or axis, and are disposed in heads, spikes, simple or branching, or in panicles; the calyx is composed of one or two scales or glumes, inserted the one above the other, and contains one or several flowers, each of which is surrounded with one or two scales, disposed in a similar manner; the stamens are usually three, sometimes one, two, or six; the ovary is simple, and becomes a seed, either naked or enveloped by an interior glume. These plants are herbaceous with a few exceptions, as the bamboo, which has the hardness of wood.

GRASSHOPPER. See *Locust*.

GRATE; a frame of iron bars, used for burning coal as fuel. Grates are commonly smaller than fireplaces intended for the consumption of wood, on account of the greater heat emitted by coal. Those used for burning anthracite should be made deeper and of a greater height than others, so as to present a comparatively small surface to the air; for, in very cold weather, the air conducts the heat from the surface faster than combustion renews it, so that, if the amount of surface exposed be large, the fire will go out. This kind of coal yields no visible smoke. The chimney, however, should be large enough to transmit smoke, otherwise some of the carbonic acid, which is formed during the combustion, will be sent into the room. This gas is the suffocating vapour of burning charcoal.

GRATIAN, a Benedictine of the twelfth century, was a native of Chiusi, and was the author of a famous work, entitled *Decretal*, or *Concordia discordantium Canonum*, in which he endeavours to reconcile those canons that seem to contradict each other. The errors of this work, which are not a few, have been exposed by subsequent writers. It is, however, a rich storehouse of the canon law of the middle ages. The best editions are those of Rome (1582), four volumes, folio, and of Lyons (1671), three volumes, folio.

GRATINGS; a sort of open cover for the hatches, resembling lattice-work, serving to give light to the lower apartments, and to permit a circulation of air, both of which are particularly necessary, when, from the turbulence of the sea, the ports between decks are obliged to be shut.

GRATTAN, HENRY, an eminent Irish orator and statesman, was born at Dublin, about the year 1750. He finished his education at Trinity college, whence he removed to England, and became a student in the Middle Temple. He was called to the Irish bar in 1772, and, in 1775, was brought into the parliament of Ireland. He immediately became distinguished in the opposition, and infused that spirit into the country, which in two years aroused 80,000 volunteers, and produced, in 1782, a repeal of the statute of 6th George I., which had enacted, that the crown of Ireland was inseparably connected with that of Great Britain; that Ireland was bound by British acts of parliament when named therein; that the

Irish house of lords had no jurisdiction in matters of repeal; and that the dernier resort, in all cases of law and equity, was in the lords of Great Britain. For his share in the acquirement of this concession, the Irish parliament voted him £50,000, and a house and lands for him and his heirs for ever. Two or three sessions of great parliamentary exertion followed, which were distinguished by the rivalry of Messrs Grattan and Flood, which terminated in the confirmed ascendency of the former, who became the leader of the country party, in the house of commons, and the head of the Irish whigs. In 1790, although already avowedly zealous for concessions to the Catholics, Mr Grattan was returned for the city of Dublin, and remained an active senator until the premature recall of earl Fitzwilliam. Disgusted by the policy which followed, and by the Irish rebellion, and its manifold horrors, he temporarily seceded from parliament, and lived in retirement. The project of a union being brought forward by Mr Pitt, he once more obtained a seat in parliament, for the purpose of opposing it. When carried, however, he did not refuse a seat in the united house of commons, being returned, in 1805, for the borough of Malton, in Yorkshire. He supported the war policy of the administration, but the later years of his parliamentary attendance were chiefly occupied in a warm and energetic support of Catholic emancipation. He died in the service of this cause; for, being unanimously called upon, by the Catholic body, to carry their petition to England, and to present and support it in the house of commons, when the exertions were represented, by his friends, as incompatible with his age and declining health, he nobly replied, that "he should be happy to die in the discharge of his duty." He did in fact die soon after his arrival in London, May 14, 1820, at the age of 70. His remains were interred in Westminster abbey. In the political life of Mr Grattan there was nothing temporising or dubious. He was the zealous and unequivocal friend to Ireland, and to what he deemed her best interests, from first to last. In private life, he was a warm friend, and, until years had softened his ardent temperament, a bitter enemy. As a public speaker, he had to contend with a defective voice; but his eloquence was always bold and commanding, combining strength with beauty, and energy and elevation with elegance. He was at all times animated, and occasionally powerful.

GRATZ; a town of Stiria, on the river Muhr, capital of a circle of the same name, comprising the northern part of Lower Stiria. It is built on a very steep hill, on the banks of the Muhr, and has a lyceum, an academy, and a large school. The houses are of stone, and the town is in general well built. It has twenty-two churches and chapels, great and small. The cathedral is not new, but was formerly the parish church. The most striking edifice in the place is a mausoleum erected to the emperor Ferdinand II., Grats has many manufactures, such as hardware, stoneware and saltpetre; also cotton and silk. 100 miles S. W. Vienna. Of the 34,000 inhabitants, 12,000 are engaged in the manufacture of chints and calico. Lon. 15° 26′ 15″ E.; lat. 47° 4′ 9″ N.

GRAUN, Charles Henry, a musical composer, master of the chapel to Frederic II. of Prussia, was born in 1701, at Wahrenbruck, in Saxony, where his father was a receiver of excise. In 1713, he went to a school in Dresden. His fine voice procured him the situation of singer in the church. In 1720, he left the school, and began to compose for the church. He spent some years in Brunswick, as a singer, and composer, until the crown-prince of Prussia obtained him from the duke Ferdinand Albert, and placed him in his chapel, at Rhineberg, in 1735. Here he prepared *cantatas* for the concerts of the prince, which he also performed himself. When the prince succeeded to the throne, in 1740, he appointed Graun to be master of his chapel, and sent him to Italy, to engage the male and female singers necessary for the newly established opera. During this journey, Graun occasionally sang his own compositions in public, with applause. After his return, he devoted himself entirely to composition for the opera, until his death, at Dresden, in 1759. The king shed tears when he heard the news of this event. Graun is reckoned among the most correct and elegant composers. The first of his known compositions are the *mottettes*, which he composed while at school, in Dresden. The pieces which he composed while in Brunswick, Rhineberg and Berlin, are very numerous. There are among them about thirty operas. His music for Ramler's oratorio for passion week, *Der Tod Jesu* (The Death of Jesus), is generally considered as his masterpiece, particularly on account of the recitatives and choruses which it contains. The chapel-master Hiller has written a Life of Graun.

GRAVE, in music, is applied to a sound which is of a low or deep tone. The thicker the cord or string, the more grave is the note or tone; and the smaller, the more acute. *Grave*, in the Italian music, denotes a very grave and slow motion, somewhat faster than *adagio*, and slower than *largo*.

GRAVE ACCENT, in grammar, shows that the voice is to be lowered. Its mark stands thus `. See *Accent*.

GRAVEL. See *Stone*.

GRAVER. See *Engraving*.

'SGRAVESANDE, William James Van; an eminent Dutch mathematician and natural philosopher of the eighteenth century. He was born in 1688, at Bois-le-Duc, and studied the civil law at the university of Leyden, where he took his doctor's degree in 1707. He settled at the Hague, and practised as a barrister; but his attention was much engrossed by mathematics and physics, on which subjects he published some dissertations in the Literary Journal of the Hague, in the conduct of which he was concerned. In 1715, he was appointed secretary to the embassy sent by the states-general to England, to congratulate George I., on his accession to the crown. On this occasion, doctor 'sGravesande formed an acquaintance with sir Isaac Newton, and was chosen a fellow of the royal society. On his returning home, he became professor of mathematics and astronomy at Leyden, where he first taught the Newtonian philosophy. In 1721, he went to Cassel, at the request of the landgrave of Hesse, to examine the famous wheel of Orffyreus, a professed exhibition of the perpetual motion. He himself considered it not necessarily impossible to prepare a machine which should contain in itself a principle of perpetual motion. In 1734, he received the chair of philosophy, which he filled with much distinction. The death of two promising sons threw him into a lingering illness, of which he died in 1742, aged 55. He possessed great power of concentrating his attention. He could, for instance, carry on intricate mathematical calculations in the midst of a number of people engaged in conversation. To his labours in the cause of science as a lecturer, he added the publication of several works, which contributed to make known the discoveries of Newton, and extend the boundaries of knowledge. Among these were, *Physices Elementa Mathematica, Experimentis confirmata, sive Introductio ad Philosophiam Newtonianam* (1720), translated into English by doctor Desaguliers; *Matheseos Universalis Elementa* (1727, 8vo), and *Introductio ad Philosophiam, Metaphysicam et Logicam continens.*

GRAVESEND; a market-town of Kent, not far from the mouth of the Thames, twenty-one miles east of London. It is a great rendesvous for shipping. The numerous vessels which usually lie at anchor in the river, keep up a constant influx of seamen and strangers. The bathing establishment draws additional visiters in the summer season; and, from all these circumstances, this town presents a continued scene of bustle and activity. There is a canal to Rochester. The inhabitants are much engaged in seafaring employments. A small factory for cables and ropes is also carried on here; and there is, besides, a yard for ship-building, in which several men-of-war have been built. Population in 1831, 5097. During the summer or bathing season, its population is greatly augmented.

GRAVINA, JOHN VINCENT, an eminent jurist and man of letters, was born at Rogiano, a castle in Calabria, in 1664. He studied civil and canon law at Naples, and, visiting Rome, resided, for some years, with Paul Coardo, of Turin. He was one of the founders of the academy of the Arcadians, and drew up their laws in the style of the Roman tables. In 1698, he was appointed professor of civil law, at the college della Sapienza, and, five years afterwards, he succeeded to the chair of canon law and the exposition of the decretals. He gained great reputation by his writings, which were numerous. The principal, *Origines Juris Civilis*, is considered a classical work, replete with learning. To the Naples edition, printed in 1713, was subjoined a treatise *De Imperio Romano*, also highly esteemed. He was also the author of Institutes of Civil and Canon Law; some treatises; *Della Tragedia; Della Ragion Poetica; De Institutione Poetarum*, and five tragedies, written on the model of the ancients, which were not favourably received. He was invited to Turin by the duke of Savoy, and was preparing to go thither when he was seised with an illness, and died in 1718, in the arms of his scholar, Metastasio, whom he made his chief heir.

GRAVING; the act of cleaning a ship's bottom, when she is laid aground, during the recess of the tide.

GRAVITATION (from *gravitas*, Latin); the act of tending to a centre. Or *gravitation* may be more generally defined the exercise of gravity, or the action which a body exercises on another by the power of gravity, See *Attraction*.

GRAVITY (*gravitas*, Latin), in physics; the natural tendency or inclination of bodies towards a centre. *Terrestrial gravity* is that force by which all bodies are continually urged towards the centre of the earth. It is in consequence of this force, that bodies are accelerated in their fall, and, when at rest, that they press the body, or that part of the body, by which they are supported. As to the cause of gravity, or its nature, nothing is known; and it would be useless to detail the hypotheses advanced to account for this most important law of nature. All that can be said is, that it appears to be an essential property of matter, or, at least, of all matter that has hitherto become the object of human investigation, though it is by no means certain that matter may not exist, which is not subject to its influence. This part of the subject appears to be beyond human comprehension. Instead, therefore, of wasting our time in useless speculation as to the cause, let us only attend to its effects, and content ourselves with examining more particularly the manner in which this principle operates on material bodies, and the laws by which it appears to be regulated; the principal of which, as deduced from experiment, or from the most unequivocal inferences, are as follows: 1. that gravitation takes place between the most minute particles of bodies; 2. that it is proportional to the masses of these bodies; 3. that it varies inversely as the square of the distance, in proceeding from the surface of the body outwards, or from its centre; 4. that it varies directly as the distance, in descending from the surface to the centre in uniform spherical bodies; 5. that it acts equally on bodies in a state of rest, as on those in motion, and that its action in the latter case is always the same, whether that motion be to or from the centre of attraction, or in any other direction; 6. that it is transmitted instantaneously from one body to another. Gravity, as relating to the science of mechanics, is divided into *absolute* and *relative*. *Absolute gravity* is that by which a body descends freely and perpendicularly in a vacuum or non-resisting medium. *Relative gravity* is that by which a body descends, when the absolute gravity is constantly counteracted by a uniform, but inferior force, such as in the descent of bodies down inclined planes, or in resisting mediums. (See *Inclined Plane.*) *Specific gravity* is the relative gravity of any body or substance, considered with regard to some other body, which is assumed as a standard of comparison; and this standard, by universal consent and practice, is rain water, on account of its being less subject to variation in different circumstances of time, place, &c., than any other body, whether solid or fluid; and, by a very fortunate coincidence, at least to British philosophers, it happens, that a cubic foot of rain water weighs 1000 ounces avoirdupois. Consequently, assuming this as the specific gravity of rain water, and comparing all other bodies with this, the same numbers that express the specific gravity of bodies, will at the same time denote the weight of a cubic foot of each in avoirdupois ounces, which is a great convenience in numerical computations. From the preceding definition, we readily draw the following laws of the specific gravity of bodies, viz. 1. in bodies of equal magnitude, the specific gravities are directly as the weights, or as their densities; 2. in bodies of the same specific gravities, the weights will be as the magnitudes; 3. in bodies of equal weights, the specific gravities are inversely as the magnitudes; 4. the weights of different bodies are to each other in the compound ratio of their magnitudes and specific gravities. Hence, it is obvious, that, of the magnitude, weight, and specific gravity of a body, any two being given, the third may be found; and we may thus find the magnitude of bodies, which are too irregular to admit of the application of the common rules of mensuration; or we may, by knowing the specific gravity and magnitude, find the weight of bodies which are too ponderous to be submitted to the action of the balance or steelyard; or, lastly, the magnitude and weight being given, we may ascertain their specific gravities.

Other properties relating to the specific gravity of bodies are as follows; viz. 1. A body immersed in a fluid will sink, if its specific gravity be greater than that of the fluid; if it be less, the body will rise to the top, and be only partly immerged; and if the specific gravity of the solid and fluid be equal, it will remain at rest in any part of the fluid in which it may be placed. 2. When a body is heavier than a fluid, it loses as much of its weight, when immersed, as is equal to a quantity of the fluid of the same bulk or magnitude. 3. If the specific gravity of the fluid be greater than that of the body, then the quantity of the fluid displaced by the part immerged, is equal to the weight of the whole body; and hence, as the specific gravity of the fluid is to that of the body, so is the whole magnitude of the body to the part immerged. 4. The specific gravities of equal solids, are as their parts immerged in the same fluid. 5. The specific gravities of fluids are as the weights

lost by the same immerged solid. A solid substance, rarer than the fluid medium, must evidently sink, till it displace an equal weight of the fluid. The submerged part of the solid hence always marks the volume of this equiponderant mass. If the floating body have a globular shape, terminated by a long slender stem, its depression in any liquid will measure the smallest differences of specific gravity. The stem may be made exactly cylindrical, for instance, and divided into portions which correspond to the 1000th parts of the bulk of the ball. Such is the general construction of the hydrometer, a very convenient instrument for examining readily the densities of different liquids. The stem will scarcely bear more than 100 distinct subdivisions; but the range can be easily enlarged, by attaching, as circumstances may require, loads answering to 100, 200, 300, &c. One of the easiest and simplest methods of determining the densities of different liquids, is by a set of small glass beads, previously adjusted, and numerically marked. Thrown into any liquor, the heavier balls sink, till they approach the required density, and become gradually buoyant, and the one which first rises to the surface indicates, in 1000th parts, the specific gravity of the fluid. These balls are adapted for examining liquids, whether lighter or heavier than water. But the most accurate and concise mode of ascertaining the density of liquids, is to employ a small glass measure with a very short, narrow neck, and adjusted to hold exactly 1000 grains of distilled water. The vessel being filled with any other liquid, the weight of it is observed, and thence its relative density to water may be found by merely striking off three decimal places. At each operation, the glass must be carefully rinsed with pure water, and again dried, by heating it, and then sucking out the humified air, for a few minutes, by the help of a slender inserted tube. If fluids of various densities, and not disposed to unite in any chemical affinity, be poured into a vessel, they will arrange themselves in horizontal strata, according to their respective densities, the heavier always occupying a lower place. This stratified arrangement of the several fluids will succeed, even though a mutual attraction should subsist, provided its operation be feeble and slow. Thus a body of quicksilver may occupy the bottom of a glass vessel, above it a layer of concentrated sulphuric acid, next this a layer of pure water, and then another layer of alcohol. The sulphuric acid would scarcely act at all upon the mercury, and a considerable time would elapse before the water sensibly penetrated the acid, or the alcohol the water. Bodies of different densities might remain suspended in those strata. Thus, while a ball of platinum would lie at the bottom of the quicksilver, an iron ball would float on its surface; but a ball of brick would be lifted up to the acid, and a ball of beech would swim in the water, and another of cork might rest on the top of the alcohol.

Table of Specific Gravities of Metals, Stones, Earths, &c.

[It may be convenient here to state merely the specific gravities of the more remarkable substances.]

	Metals.		
Platinum,	purified,	. .	19·50
"	hammered,	.	20·34
"	laminated,	.	20·34
"	drawn into wire,	. . .	22·07
Gold,	pure and cast,	. .	19·26
"	hammered,	. .	19·36
Mercury,		. . . .	13·57
Lead,	cast,	. . . .	11·35
Silver,	pure and cast,	.	10·47
"	hammered,	. .	10·51
Bismuth,	cast,	. . . .	9·82
Copper,	cast,	. . . .	8·79
Copper,	cast, wire,	. .	8·39
Brass,	cast,	. . . .	8·40
Brass	wire,	. . . .	8·54
Cobalt and nickel,	cast,	.	7·81
Iron,	cast,	. . . .	7·21
Iron,	malleable,	. . .	7·79
Steel,	soft,	. . . .	7·83
"	hammered,	.	7·84
Tin,	cast,	. . . .	7·30
Zinc,	cast,	. . . .	7·20
Antimony,	cast,	. . .	6·86
Molybdenum,	. . . .		4·74
Sulphate of barytes,	. .		4·43
Zircon of Ceylon,	. . .		4·41
	Stones.		
Oriental ruby,	. . .		4·28
Brazilian ruby,	. . .		3·53
Bohemian garnet,	. .		4·19
Oriental topaz,	. . .		4·01
Diamond,	. . . .		3·50
Crude manganese,	. .		3·58
Flint glass,	. . . .		2·89
Glass of St Gobin,	. .		2·49
Fluor spar,	. . . .		3·18
Parian marble,	. . .		2·84
Peruvian emerald,	. .		2·78
Jasper,	. . . . .		2·70
	Earths, &c.		
Carbonate of lime,	. .		2·71
Rock crystal,	. . . .		2·65
Flint,	. . . . .		2·59
Sulphate of lime,	. . .		2·33
Sulphate of soda,	. . .		2·30
Common salt,	. . . .		2·13
Native sulphur,	. . .		2·03
Nitre,	. . . . .		2·00
Alabaster,	. . . . .		1·87
Phosphorus	. . . . .		1·77
Plumbago,	. . . . .		1·66
Alum,	. . . . .		1·72
Asphaltum,	. . . . .		1·40
Jet,	. . . . .		1·24
Coal, from	. .	1·24 to	1·30
Sulphuric acid,	. . . .		1·84
Nitric acid,	. . . .		1·22
Muriatic acid,	. . .		1·19
	Liquids, Oils, &c.		
Equal parts by weight of water and alcohol,	. . . .		·93
Ice,	. . . . .		·92
Strong alcohol,	. . . .		·82
Sulphuric ether,	. . .		·74
Naphtha,	. . . . .		·71
Sea water,	. . . . .		1·03
Oil of sassafras,	. . . .		1·09
Linseed oil,	. . . . .		·94
Olive oil,	. . . . .		·92
White sugar,	. . . .		1·61
	Resins, Gums, &c.		
Gum arabic and honey,			1·45
Pitch,	. . . . .		1·15
Isinglass,	. . . . .		1·11
Yellow amber,	. . . .		1·08
Hen's egg, fresh laid,	.		1·09
Human blood,	. . . .		1·05
Camphor,	. . . . .		·99
White wax,	. . . . .		·97
Tallow,	. . . . .		·94
Pearl,	. . . . .		2·75
Sheep's bone,	. . . .		2·27
Ivory,	. . . . .		1·92
Ox's horn,	. . . . .		1·84
	Wood.		
Lignum vitæ,	. . .		1·33
Ebony,	. . . .		1·33
Mahogany,	. . . . .		1·06
Dry oak,	. . . . .		·93
Beech,	. . . . .		·85
Ash,	. . . . .		·84
Elm, from	. . .	·60 to	·66
Fir, from	. . .	·47 to	·55
Poplar,	. . . . .		·38
Cork,	. . . . .		·24
	Gases.		
Chlorine,	. . . . .		·02222
Carbonic acid gas,	.		·00174
Oxygen gas,	. . .		·00136
Atmospheric air,	. .		·00125
Azote,	. . . . .		·00117
Hydrogen gas,	. .		·00009

Gravity, Centre of, in mechanics, is a point within a body, through which, if a plane pass, the segments on each side will equiponderate; that is, neither of them can move the other. Hence, if the descent of the centre of gravity be prevented, or if the body be suspended by its centre of gravity, it will continue at rest in equilibrium in any position. The whole gravity, or matter, of a body may be conceived united in its centre of gravity; and, therefore, it is usual, in demonstration, to substitute the centre for the body. In homogeneous bodies, which may be divided lengthwise into similar and equal parts, the centre of gravity will be the same as the centre of magnitude. The centre of gravity of a parallelogram or cylinder, or any prism whatever, is in the middle point of the axis, and the centre of gravity of a circle, or any regular figure, is the same as the centre of magnitude. The common centre of gravity of two bodies, is a point so situated in a right line joining the centres of the two bodies, that if the point be suspended, the two bodies will equiponderate and rest. Thus the point of suspension in a balance or steelyard, where the two weights equiponderate, is the common centre of gravity of the two weights.

Gravity, in music, is the modification of any sound, by which it becomes deep or low in respect of some other sound.

GRAY, Thomas, a distinguished English poet, was the son of a money scrivener in the city of London, where he was born in 1716. He was sent to Eton, and there laid the foundation of his future intimacy with Horace Walpole and Richard West. In 1734, he removed to Cambridge as a student of St Peterhouse, where he early obtained some reputation for literature and poetry. He quitted college in 1738, and entered himself at the Inner Temple, with a view of studying law, but was easily induced to accept the invitation of Mr Walpole to accompany him in his tour of Europe, towards the close of which they separated, in consequence of some disagreement. Gray finished the expedition by himself, and returned to England in 1741. His father soon after died, and leaving but a small property, Mr Gray returned to academic retirement at Cambridge. Here he occupied himself several years in laying literary schemes and plans of magnitude, which he admirably con-

menced, but wanted energy to mature. So slow was he to publish, that it was not until 1747 that his Ode on a distant Prospect of Eton College made its appearance; and it was only in consequence of the printing of a surreptitious copy, that, in 1751, he published his Elegy written in a Country Churchyard. In 1757, on the death of Cibber, the office of laureate was offered to Mr Gray, who declined it, and the same year published his two principal odes, On the Progress of Poesy, and The Bard. In 1759, he removed to London, where he resided for three years. In 1768, the duke of Grafton presented him with the professorship of modern history at Cambridge; in consequence of which he wrote the Ode for Music, for the installation of that nobleman as chancellor of the university the following year. It was the intention of Gray to do something more than his predecessors, who had made the office a sinecure, although affording a salary of £300 per annum; but, his health soon after declining, he proceeded no farther than to sketch a plan for his inauguration speech. He died of the gout in his stomach, on the 30th July, 1771, in his fifty-fifth year, and was buried with his mother in the churchyard of Stoke Pogeis in Buckinghamshire. As a poet, Gray is splendid, lofty, energetic, and harmonious. Although lyric poetry was what he chiefly cultivated, he would have excelled in the didactic, if a judgment may be formed from his noble fragment of An Essay on the Alliance of Education and Government. As a writer of Latin verse, he is surpassed by few, and his letters are admirable specimens of the epistolary style. In his disposition he was peculiarly fastidious, which gave an air of effeminacy and timidity to his manners, subjecting him to much ridicule, at the same time singularly contrasting with the manly strains of his poetry. His general acquirements were uncommon, but his want of energy and perseverance rendered his extensive research little effective. See *Memoirs of his life*, &c. by Mason.

GRAY, Lady Jane. See *Grey*.

GREAT BAHAMA. See *Bahamas*.

GREAT BAHAMA BANK. See *Bahama Bank*.

GREAT ST BERNARD. See *Bernard, Great St*.

GREAT BRITAIN. See the articles *Britain*, *England*, and *Scotland*.

GREECE, Ancient. The name of *Græcia* originated in Italy, and was probably derived from Pelasgian colonies, who, coming from Epirus, and calling themselves *Grecians*, from *Græcus*, the son of their ancestor, Thessalus, occasioned the application of this name to all the people who spoke the same language with them. In earlier times, e. g., in the time of Homer, Greece had no general name among the natives. It afterwards received the name of *Hellas*, and still later, after the country was conquered by the Romans, the name of *Achaia*, under which Macedonia and Epirus were not included. The Grecian tribes were so widely dispersed, that it is difficult to determine, with precision, the limits of *Greece*, properly so called. The name was sometimes applied only to that country which was surrounded on three sides by the Mediterranean sea, was separated from Macedonia by the Cambunian mountains, and contained about 42,000 square miles; sometimes it was taken in a wider sense, including Macedonia and Epirus, having mount Hæmus and the Ægean and Ionian seas for its boundaries, and comprising the islands of these two seas. Greece consists partly of continental, and partly of insular regions. A chain of mountains, extending from the Ambracian gulf, in the west, to Thermopylæ, on the east, separates Northern Greece from Southern. The climate is alternately severe or mild, as the mountains or valleys predominate, but it is agreeable and healthy. People are not unfrequently found here, whose age is over one hundred years. The soil of the valleys and plains is favourable to the growth of the finest tropical fruits, while the summits of the high mountains are covered with the plants of the polar regions. In Athens, the thermometer very seldom falls below the freezing point, or rises above 25° Réaumur (88 Fahrenheit). In the islands, every evening, at a particular hour, a gentle sea breeze sets in, which tempers the heat of the day. But in the plains of Thessaly, which lie 1200 feet above the level of the sea, and more especially in the mountains of Arcadia, the winter is as severe as in England. The fruits of the soil are as abundant as they are various. Even where it is not adapted for the purposes of husbandry, it produces thyme, marjoram, and a number of aromatic herbs, which afford a rich pasturage. Greece produces eight kinds of corn and ten kinds of olives. It is, perhaps, the native country of the grape, particularly of the small sort, from which the currants of commerce are had. The name of these is a corruption of *Corinth*, the chief plantation having formerly been on the isthmus of this name. There are forty kinds of Grecian grapes known. The honey of this country is very famous. (See *Hymettus*.) Greece produces all the necessaries of life, and there is no country whose coast is so well supplied with bays and harbours for commerce. The main land is now divided into Northern Greece, Middle Greece, Greece Proper, or Hellas, in its narrower sense, and the Peloponnesus (Morea). I. Northern Greece includes, 1. Thessaly (q. v.) (now Janna); 2. Epirus (q. v.) (now Albania); 3. Macedonia (now Macedonia, or Filiba-Vilajeti), accounted a part of Greece from the time of Philip and Alexander, and making a link in the chain between Greece and Thrace, of which, in earlier times, Macedonia made a part. II. Middle Greece, or Hellas (now Livadia), contains, 1. Acarnania, inhabited by a rough and warlike people, with no remarkable rivers or mountains; 2. Ætolia (q. v.); 3. Doris, or Doris Tetrapolis (formerly Dryopolis); 4. Locris (q. v.) with the pass of Thermopylæ; 5. Phocis, watered by the Cephisus, and containing mount Parnassus, under which lay Delphi (q. v.); 6. Bœotia (q. v.); 7. Attica (q. v.); 8. Megaris, with the city of Megara, the smallest of all the Grecian states. III. The peninsula of the Peloponnesus, to which the isthmus of Corinth led through Megaris, contained, 1. the territory of Corinth (q. v.), with the city of the same name, called, in earlier times, *Ephyra*; 2. the small territory of Sicyon, with the ancient city of the same name; 3. Achaia, anciently called *Ægialos*, and, afterwards, *Ionia*, contained twelve cities on the coast which stretched along the Corinthian gulf to the river Melas; 4. Elis, divided into two parts by the river Alpheus, stretched from Achaia, south-west, to the sea-coast; it contained the celebrated cities of Cyllene and Olympia (q. v.); 5. Messenia, with the river Pamisus, extending from the southern part of Elis along the sea to the extremity of the continent, with the city of Messene, and the frontier towns of Ithome and Ira; 6. Laconia, Laconica, Lacedæmon, a mountainous country traversed by the Taygetus, and watered by the Eurotas, bounded on three sides by the Messenian, the Laconian, and the Argolic gulfs; Sparta (q. v.) was the capital; 7. Argolis (q. v.); 8. Arcadia (q. v.). The islands which belong to Greece, lie, I. in the Ionian sea, on the west and south of the main land. 1. Corcyra (Corfu); 2. Cephalonia; 3. Asteris; 4. Ithaca (Teaki); 5. Zacynthus (Zante: St Maura is the ancient peninsula of Leucadia, formerly connected with the main land of Acarnania); 6. Cythera (Cerigo); 7. the group

of islands in the Argolic gulf; 8. the island of Pelops, near the territory of Troezene, and, not far off, Sphæria, Calauria (Poros); 9. Ægina; 10. Salamis (Coluri), and many surrounding islands; 11. Crete (Candia). II. In the Ægean sea, now called the *Archipelago*, on the south and east sides of the main land, lie, 1. Carpathos (Scarpanto); 2. Rhodes; 3. Cyprus; 4. the Cyclades, i. e., Delos, and the surrounding islands on the west; and, 5. the Sporades, i. e., those scattered over the eastern Archipelago. To the Cyclades belong Delos (Sdilli), Rhenæa, Micones, Tenos (Tino), Andros, Gyaros, Ceos (Zia), Syros, Cythnus (Thermia), Seriphos, Siphnos, Cimolis (Argentiera), Melos (Milo), Thera (Santorin), Ios, where Homer is said to have been buried, Naxos (in more ancient times, Dia), Paros (Paria), &c. To the Sporades belong Cos (Stanchio, Stingu), Parmacusa, Patmos (Palmo, Palmosa), Samos, Chios (Scio), with many smaller surrounding islands, Lesbos (Mitylene), the surrounding islands called *Hecatonnesi*, i. e., the *hundred islands*, Tenedos (Bogdscha, Adassi), Lemnos (Stalimene), Imbros (Lembro), Samothrace, Thasos, and, nearer the Grecian coast, Scyros and Eubœa (Negropont). Ancient Macedonia was, in its interior, rough, woody, and barren, and produced wine, oil, and fruit-trees only on the coast. The same is true of Epirus. But Thessaly was a fruitful and well watered country, and produced the finest horses.—Bœotia was likewise fruitful, and abounded in fine herds of cattle. The soil of Locris was moderately good, that of Doris was more fruitful, and that of Phocis still more so, producing, in abundance, good wine, fine oil, and madder. The rough mountains of Ætolia were neither suited to pasturage nor to agriculture. Acarnania, the sea-coast of Attica, and the mountainous parts of Megaris, were as little remarkable for fertility as Achaia. Argolis had a fruitful soil; and in Laconia, Messenia, and Elis, both agriculture and pasturage flourished. Arcadia was a mountainous country, well adapted for the raising of flocks. The Grecian islands lie under a fortunate sky, and are most of them very rich in wine and in wild and cultivated fruits.*

The History of Greece is divided into three principal periods—the periods of its rise, its power, and its fall. The first extends from the origin of the people, about 1800 years B. C., to Lycurgus, 9[illegible] B. C.; the second extends from [illegible] conquest of Greece by the Romans, 146 [illegible] third shows us the Greeks as a conquered people constantly on the decline, until it ends, in A. D. 500, the old Grecian states [illegible] up in the Byzantine empire. According to the Pelasgi, under Inachus, were the first [illegible] wandered into Greece. They dwelt [illegible] earth, supporting themselves on wild fruits [illegible] ing the flesh of their conquered enemies. [illegible] roneus, who is called *king of Argos*, [illegible] duce civilization among them. Pelasgus [illegible] and Ægialeus in Achaia, endeavored [illegible] time to civilize their savage subjects. [illegible] pean walls are their work. (See *Cyclopean walls*.) Small kingdoms arose; e. g., Sparta [illegible] Some barbarous tribes received names [illegible] brothers, Achæus, Pelasgus, and Pyth[illegible] colonies from Arcadia to Thessaly, and [illegible] Thessalus and Graecus (the sons of Pyrrha [illegible] others. Deucalion's flood, 1514 B. C., [illegible] gration of a new people from Asia, [illegible] produced great changes. The Hellenes [illegible] themselves over Greece, and drove out [illegible] or mingled with them. Their name [illegible] general name of the Greeks. Greece [illegible] from its savage state, and improved still [illegible] after the arrival of some Phœnician [illegible] colonies. About sixty years after the [illegible] calion, Cadmus the Phœnician settled [illegible] and introduced a knowledge of the alphabet [illegible] from Sicily, and Triptolemus, from Eleusis, [illegible] the nation agriculture, and Bacchus planted [illegible] The Egyptian fugitive Danaus came to Argos [illegible] Cecrops to Attica. Now began the heroic [illegible] which Hercules, Jason, Pirithous, and Theseus [illegible] long, and that of the old bards and sages, Linus [illegible] ris, Amphion, Orpheus, Linus, Musæus, Eumolpus [illegible] many others. A warlike spirit filled [illegible] nation, so that every quarrel called all the [illegible] Greece to arms, as, for instance, the war [illegible] Thebes, and the Trojan war, 1200 years B. C. [illegible] latter forms one of the principal epochs [illegible] of Greece. This war deprived many [illegible] their princes, and produced a general [illegible] which the Heraclidæ took advantage, [illegible] after the destruction of Troy, to possess [illegible] of the Peloponnesus. They drove out the [illegible] and Achæans, who took refuge in Attica. [illegible] finding here sufficient room, Neleus [illegible] Ionian colony to Asia Minor, where [illegible] Æolians, from the Peloponnesus, had already [illegible] and was followed, eighty years after, by [illegible] Dorians. In other states republics were [illegible] viz., in Phocis, in Thebes, and in the Achæan [illegible] nies, and at length also in Athens and many [illegible] places; so that, for the next 400 years [illegible] southern part of Greece was for the most part [illegible] pied by republics. Their prosperity and the [illegible] of the climate, in the mean time, made the [illegible] colonies the mother of the arts and of learning, [illegible] gave birth to the songs of Homer and Hesiod, [illegible] commerce, navigation, and law flourished, [illegible] however, still retained its ancient simplicity [illegible] ners, and was unacquainted with luxury. [illegible] population of any state became too numerous, [illegible] were sent out; for example, in the seventh and [illegible] eighth centuries, the powerful colonies of [illegible] Syracuse, Sybaris, Crotona, Tarentum, Cumæ, [illegible] and Messena were planted in Sicily and the [illegible] part of Italy. (See *Magna Græcia*.) The [illegible] dependent states of Greece needed a common [illegible] of union. This bond was found in the worship [illegible] Delphi, the Amphictyonic council, and the

* See Hellas, or a Geographical and Antiquarian Account of Ancient Greece and its Colonies, with a View of the Modern Discoveries made in that Country, by F. K. G. Kruse, professor (Leipsic, 1826), two volumes with an Atlas. A Journal of a Tour through Greece and Albania (Berlin, 1826), contains very satisfactory accounts of Ancient Greece, particularly in a military point of view. Gell and Dodwell have written on the geography, topography, and history of Greece in ancient and modern times, with the writings of the ancients in their hands. Dodwell's companion, Pomardi, has given some additional information (Rome, 1820). Chandler, Stuart, Revett, have given accurate descriptions of the remains of the architecture and sculpture of the ancient Greeks. Spon and Wheeler, Le Chevalier, Choiseul-Gouffier, and Clark and Turner have furnished accurate accounts of parts of the country previously little known. See also Horner's Picture of Grecian Antiquities, or an Account of the most celebrated Places and most important Works of Art of Ancient Greece, (Zurich, 1821, *et seq.*) The journals of Hughes, Holland, Vaudoncourt, Leake, Douglas, Castellan, and also Galt's Letters from the Levant, contain good observations on the manners and customs of Modern Greece, and the islands of the Archipelago. The principal work, however, is that of Pouqueville (formerly French consul-general near Ali Pacha) *Voy. dans la Grèce* (Paris, 1820, six volumes). Ikeu's *Hellenion*, &c., contains information on the history of the cultivation of the modern Greeks. Gell, in his Narrative of a Journey in the Morea (London, 1823), maintains that the Greeks do not possess such cultivation as to be worthy of freedom. The contrary opinion is maintained by Ed. Blaquière, in his Report on the present state of the Greek Confederation, &c., (London, 1823). P. O. Brœnsted's *Voyages dans la Grèce accompagnés de Recherches Archéologiques* (Paris, 1826, with engravings), is a valuable work. For a list of works on the Greek revolution, *see the close of that division of this article, to which it is trusted.*

mong which the Olympic were the most
ished, the institution, or rather revival of
76 B. C., furnished the Greeks with a chro-
era. (See *Epoch*.) From this time, Athens
ta began to surpass the other states of
n power and importance. At the time of
an war, Greece had already made important
in civilization. Besides the art of poetry,
that philosophy began to be cultivated 600
nd even earlier in Ionia and Lower Italy
Greece Proper. Statuary and painting were
rishing condition. The important colonies
lia (Marseilles), in Gaul, and Agrigentum, in
were founded. Athens was continually ex-
her commerce, and established important
cial posts in Thrace. In Asia Minor, the
colonies were brought under the dominion
Lydian Crœsus, and soon after under that
s. Greece itself was threatened with a
fate by the Persian kings Darius and Xerxes.
he heroic spirit of the free Greeks showed
s its great brilliancy. Athens and Sparta
alone withstood the vast armies of the Per-
d the battles of Marathon, Thermopylæ, and
, as well as the sea fights at Artemisium,
s, and Mycale, taught the Persians that the
were not to be subdued by them. Athens
ceeded all the other states in splendour and
er. The supremacy which Sparta had hitherto
ined, devolved on this city, whose commander,
, compelled the Persians to acknowledge the
ndence of Asia Minor. Athens was also the
of the arts and sciences. The Peloponnesian
ow broke out, Sparta being no longer able to
e the overbearing pride of Athens. This war
ated Greece, and enslaved Athens, until Thra-
s again restored its freedom; and, for a short
Sparta was compelled, in her turn, to bend
the Theban heroes Epaminondas and Pelopi-
In spite of these disturbances, poets, philoso-
, artists, and statesmen, continued to arise,
erce flourished, and manners and customs were
d to the highest degree of refinement. But
unhappy period had now arrived, when the
s, ceasing to be free, ceased to advance in
ation. A kingdom, formed by conquest, had
n up on the north of Greece, the ruler of which,
, united courage with cunning. The dissen-
which prevailed among the different states,
led him an opportunity to execute his ambitious
, and the battle of Chæronea, 338 B. C., gave
edonia the command of all Greece. In vain did
subjugated states hope to become free after his
. The destruction of Thebes was sufficient to
ct all Greece to the young Alexander. This
e, as generalissimo of the Greeks, gained the
splendid victories over the Persians. An at-
t to liberate Greece, occasioned by a false
rt of his death, was frustrated by Antipater.
Lamian war, after the death of Alexander, was
lly unsuccessful. Greece was now little better
a Macedonian province. Luxury had enervated
ancient courage and energy of the nation. At
th, most of the states of Southern Greece, Sparta,
Ætolia excepted, concluded the Achæan league,
the maintenance of their freedom against the
edonians. A dispute having arisen between this
ue and Sparta, the latter applied to Macedonia
help, and was victorious. But this friendship
soon fatal, for it involved Greece in the contest
veen Philip and the Romans, who, at first, in-
l, restored freedom to the Grecian states, while
changed Ætolia, and soon after Macedonia, into
an provinces; but they afterwards began to ex-
dissensions in the Achæan league, interfered in
the quarrels of the Greeks, and finally compelled them to take up arms to maintain their freedom. So unequal a contest could not long remain undecided; the capture of Corinth, 146 B.C., placed the Greeks in the power of the Romans. During the whole period which elapsed between the battle of Chæronea and the destruction of Corinth by the Romans, the arts and sciences flourished among the Greeks; indeed, the golden age of the arts was in the time of Alexander. The Grecian colonies were yet in a more flourishing condition than the mother country; especially Alexandria, in Egypt, became the seat of learning. As they, also, in process of time, fell under the dominion of the Romans, they became, like their mother country, the instructers of their conquerors. In the time of Augustus, the Greeks lost even the shadow of their former freedom, and ceased to be an independent people, although their language, manners, customs, learning, arts, and taste spread over the whole Roman empire. The character of the nation was now sunk so low, that the Romans esteemed a Greek as the most worthless of creatures. Asiatic luxury had wholly corrupted them; their ancient love of freedom and independence was extinguished; and a mean servility was substituted in its place. At the beginning of the fourth century, the nation scarcely showed a trace of the noble characteristics of their fathers. The barbarians soon after began their ruinous incursions into Greece.—Besides the well known works on the history of Greece, by Mitford, Gillies, Barthélemy (Anacharsis), &c., we would mention Clinton's *Fasti Hellenici* (Oxford, 1824), an important work on the political and literary chronology of Greece, from the 55th to the 124th Olympiad; and Wachsmuth's *Hellenische Alterthumskunde* (1 vol., Halle, 1826); also Heeren's Politics of Ancient Greece (translated, Boston, 1824).

The principal traits in the character of the ancient Greeks, were simplicity and grandeur. The Greek was his own instructer, and if he learned any thing from others, he did it with freedom and independence. Nature was his great model, and in his native land she displayed herself in all her charms. The uncivilised Greek was manly and proud, active and enterprising, violent both in his hate and in his love. He esteemed and exercised hospitality towards strangers and countrymen. These features of the Grecian character had an important influence on the religion, politics, manners, and philosophy of the nation. The gods of Greece were not, like those of Asia, surrounded by a holy obscurity; they were human in their faults and virtues, but were placed far above mortals. They kept up an intercourse with men; good and evil came from their hands; all physical and moral endowments were their gift. The moral system of the earliest Greeks taught them to honour the gods by an exact observance of customs; to hold the rights of hospitality sacred, and even to spare murderers, if they fled to the sanctuaries of the gods for refuge. Cunning and revenge were allowed to be practised against enemies. No law enforced continence. The power of the father, of the husband, or the brother, alone guarded the honour of the female sex, who therefore lived in continual dependence. The loss of virtue was severely punished, but the seducer brought his gifts and offerings to the gods, as if his conduct had been guiltless. The security of domestic life rested entirely on the master of the family. From these characteristic traits of the earliest Greeks, originated, in the sequel, the peculiarities of their religious notions, their love of freedom and action, their taste for the beautiful and the grand, and the simplicity of their manners. The religion of the Greeks was not so much mingled with superstition as that of the Romans; thus, for example, they were

unacquainted with the practice of augury. The Greek was inclined to festivity, even in religion, and served the gods less in spirit than in outward ceremonies. His religion had little influence on his morals, his belief, and the government of his thoughts. All it required was a belief in the gods, and in a future existence; a freedom from gross crimes, and an observance of prescribed rites. The simplicity of their manners, and some obscure notions of a supreme God, who hated and punished evil, loved and rewarded good, served, at first, to maintain good morals and piety among them. These notions were afterwards exalted and systematised by poetry and philosophy, and the improvement spread from the cultivated classes through the great mass of the people. In the most enlightened period of Greece, clearer ideas of the unity of the deity, of his omniscience, his omnipresence, his holiness, his goodness, his justice, and of the necessity of worshipping him by virtue and purity of heart, prevailed. The moral system of some individuals among the Greeks was equally pure. The precepts of morality were delivered at first in sententious maxims; for example, the sayings of the seven wise men. Afterwards, Socrates and his disciples arose, and promulgated their pure doctrines. The love of freedom among the Greeks sprang from their good fortune, in having lived so long without oppression or fear of other nations, and from their natural vivacity of spirit. It was this which made small armies invincible, and which caused Lycurgus, Solon, and Timoleon to refuse crowns. Their freedom was the work of nature, and the consequence of their original patriarchal mode of life. The first kings were considered as fathers of families, to whom obedience was willingly paid, in return for protection and favours. Important affairs were decided by the assemblies of the people. Each man was master in his own house, and in early times no taxes were paid. But as the kings strove continually to extend their powers, they were ultimately compelled to resign their dignities, and free states arose, with forms of government inclining more or less to aristocracy or democracy, or composed of a union of the two; the citizens were attached to a government which was administered under the direction of wise laws, and not of arbitrary power. It was this noble love for a free country, which prompted Leonidas to say to the king of Persia, that he would rather die than hold a despotic sway over Greece. It was this which inspired Solon, Themistocles, Demosthenes, and Phocion, when, in spite of the ingratitude of their countrymen, they chose to serve the state and the laws, rather than their own interests. The cultivation of their fruitful country, which, by the industry of the inhabitants, afforded nourishment to several millions, and the wealth of their colonies, prove the activity of the Greeks. Commerce, navigation, and manufactures flourished on all sides; knowledge of every sort was accumulated; the spirit of invention was busily at work; the Greeks learned to estimate the pleasures of society, but they also learned to love luxury. From these sources of activity sprang also a love of great actions and great enterprises, so many instances of which are furnished by Grecian history. Another striking trait of the Grecian character, was a love of the beautiful, both physical and intellectual. This sense of the beautiful, awakened and developed by nature, created for itself an ideal of beauty, which served them, and has been transmitted to us, as a criterion for every work of art. A noble simplicity pervades every thing which comes from them. It is this which has made the Greeks the instructers of all ages and nations.

Greek Language and Writing. The language which we call *Greek*, was not the primitive language of Greece, for Greece was originally inhabited by the Pelasgi. Their language was already extinct in the time of Herodotus, who asserts that it was different from the Hellenic, and adds, that it is probable that the Hellenes have retained their original language (I. 57). But on the question whence it originated, there is a diversity of opinion; for some derive it from the Persian, others from the Scythian—two opinions, which are not, perhaps, incompatible with each other. Out of Greece it was spoken in a great part of Asia Minor, of the south of Italy and Sicily, and in other regions which were settled by Grecian colonies. From the great number of Hellenic tribes of the same race, it was to be expected that there would be different dialects, the knowledge of which is the more necessary for becoming acquainted with the Greek language, since the writers of this nation have transmitted the peculiarities of the different dialects in the use of single letters, words, forms, terminations, and expressions, and that not merely to characterise more particularly an individual represented as speaking, but even when they speak in their own person. It is customary to distinguish three leading dialects, according to the three leading branches of the Greeks, the Æolic, the Doric, and the Ionic, to which was afterwards added the mixed Attic dialect; besides these, there are several secondary dialects. The four leading dialects may be reduced to two, the Hellenic-Doric, and the Ionic-Attic. The former was the oldest; in fact, Doric was generally used to signify what was ancient. The oldest Doric style is displayed in the Æolic dialect, from which the Latin language is derived. The Doric was hard and harsh; the Ionic was the softest. The Æolic was spoken on the north of the Isthmus (excepting in Megara, Attica, and Doris), in the Æolian colonies of Asia Minor, and on some of the northern islands of the Ægean sea. The Doric was spoken in the Peloponnesus, in the Doric Tetrapolis, in the Doric colonies of Asia Minor, of Lower Italy (Tarentum), of Sicily (Syracuse, Agrigentum), and most purely by the Messenians; the Ionic in the Ionian colonies of Asia Minor, and on the islands of the Archipelago; and the Attic in Attica. In each of these dialects, there are celebrated authors. To the Ionic dialect belong, in part, the works of the oldest poets, Homer, Hesiod, Theognis, etc.; it is found pure in some prose writers, especially Herodotus, and Hippocrates; the poems of Pindar, Theocritus, Bion, and Moschus. Little Doric prose remains, and that is mostly on mathematical or philosophical subjects. In Æolic, we have fragments of Alcæus and Sappho. After Athens had obtained the supremacy of Greece, and rendered itself the centre of all literary cultivation, the masterpieces of Æschylus, Sophocles, Euripides, Aristophanes, Thucydides, Xenophon, Plato, Isocrates, Demosthenes, etc., made the Attic the common dialect of literature. Grammarians afterwards distinguished the genuine Attic, as it exists in those masters, from the Attic of common life, calling the latter the *common Greek*, or *Hellenic dialect*, and even the later Attic writers, posterior to the golden age of the literature, *Hellenes*, or common *Greeks*. In this latter class are Aristotle, Theophrastus, Apollodorus, Polybius, Plutarch, and others, many of whom, however, wrote genuine Attic, as Lucian, Ælian, and Arrian. Except the dramatists, the poets by no means confined themselves to the Attic; the dramatists themselves assumed the Doric, to a certain degree, in their choruses, for the sake of giving them additional solemnity, because these belonged to the oldest liturgy of the Greeks; and the other poets retained the Homeric style. It cannot be denied, that the Greeks were much better

acquainted with their different dialects than some moderns, the Germans, for instance, are with theirs. This may, perhaps, have been, in a great degree, the effect of the universal popularity of Homer, the use of a religious ritual, and the great mutual intercourse of the nation. But, probably, the dialects were not, in the earliest times, so distinct from each other as they afterwards became; and on this hypothesis we must explain the peculiarities of the style of Homer and Hesiod. "In Homer and Hesiod," says Matthiæ, "forms and expressions occur, which grammarians pronounce Æolic, Doric, Attic, or the peculiarities of a local dialect. But they could hardly have been such at the time of these poets, who would have as little allowed themselves to employ such a mixture, as a German poet would permit himself to mingle together Lower Saxon, and High German provincialisms. The language of Homer seems rather to have been the language of the Ionians of that time. Of the forms common in Homer, all did not remain in the Ionic dialect, but some subsisted in the Æolic-Doric only, others merely in the Attic. The grammarians call that Attic, Æolic, Doric, etc., in Homer, which was so at their time." The period when these changes took place in the leading dialects cannot be determined. It follows from all this, that, to have a thorough knowledge of the Greek language, we must follow out, historically, the course of its formation, taking no partial grammar as our foundation, but extending our view over all the varied forms of the dialects—a labour which this language, so rich in classic models of every kind, and therefore so perfect, so flexible, so expressive, so sweet in its sound, so harmonious in its movements, and so philosophical in its grammatical forms and whole structure, merits, and richly rewards. At what time this language first began to be expressed in writing, has long been a subject of doubt. According to the general opinion, Cadmus, the Phœnician, introduced the alphabet into Greece. His alphabet consisted of but sixteen letters; four (Θ Ξ Φ X) are said to have been invented by Palamedes in the Trojan war, and four more (Z H Ψ Ω) by Simonides of Ceos. That the eight letters mentioned, are more modern than the others, is certain, partly from historical accounts, partly from the most ancient inscriptions. As the Ionians first adopted these letters, and the Athenians received them from them, the alphabet with twenty-four letters is called the *Ionic*. The figures of the oldest Phœnician and Greek letters differ very much from the modern Hebrew and Greek letters. There have not been wanting persons, however, who assert that the art of writing was practised among the Pelasgi before the time of Cadmus. This opinion, not unknown to the ancients, but corroborated by no single author of authority, has not failed to meet with advocates in modern times. Others, on the contrary, have appeared, who place the origin of the art of writing in Greece much later. The first who attracted attention to this point, was Wood, in his Essay on the original genius of Homer. It is, at all events, of great importance, for forming a proper judgment of Homer, and deciding respecting Ante-Homeric poetry and literature, to ascertain whether the art of writing was or was not known in the time of Homer. Wood's opinion is, that we may place the time when the use of the alphabet became common in Greece, and the beginning of prose writing, in about the same period, 554 before Christ, and about as long after Homer. In Homer's time, all knowledge, religion and laws were preserved by memory alone, and for that reason were put in verse, till prose was introduced with the art of writing. The argument drawn from several ancient inscriptions on temples, Wolf has deprived of all its force: in his *Prolegomena* to Homer, he has converted the question with more precision into two:—1. When did the Greeks become acquainted with the art of writing? 2. When was it common among them? In solving the latter question, it must be ascertained when convenient materials for writing became common, and in what century the writing of books was introduced among the Greeks. Wolf proves not only that Homer committed to writing nothing which he sang, the skins of animals not having been used for writing till after him, nor Egyptian papyrus till the time of Psammeticus, but that his verses were never committed to writing till the middle of the sixth century before Christ. It remains to remark, that the Greeks originally wrote their lines from right to left, then *boustrophedon* (see *Boustrophedon*), and finally from left to right.

Greek Literature. The origin of Greek literature, that is, of the intellectual cultivation of the Greeks by written works, is lost in an almost impenetrable obscurity. Though there existed in Greece, in earlier times, no actual literature, there was by no means a want of what we may, not improperly, call *literary cultivation*, if we free ourselves from the prejudice, that the palladium of humanity consists solely in written alphabetical characters. The *first period* of Grecian cultivation, which extends to the invasion of the Peloponnesus by the Heraclidæ and Dorians, and the great changes produced by it, consequently to eighty years after the Trojan war, and which we may designate by the name of the *Ante-Homeric period*, was indeed utterly destitute of literature; but it may be questioned whether it was also destitute of all that culture, which we are accustomed to call *literary*. The fables which are told of the intellectual achievements of this period, have a certain basis of truth. Among the promoters of literary cultivation, in this time, we must distinguish three classes:—1. Those of whom we have no writings, but who are mentioned as inventors of arts, poets and sages: Amphion, Demodocus, Melampus, Olen, Phemius and Prometheus. 2. Those to whom are falsely attributed works no longer extant: Abaris, Aristeas, Chiron, Epimenides, Eumolpus, Corinnus, Linus and Palamedes. 3. Those to whom writings yet extant, which, however, were productions of later times, are attributed: Dares, Dictys, Horapollo, Musæus, Orpheus, and the authors of the Sibylline oracles. This is not the place to inquire whether any and how much of these writings is genuine. It is enough, that the idea of such a forgery proves the existence of earlier productions. And how could the next period have been what it was, without previous preparation? If we may thus infer what must have been, in order that the succeeding period should be what it was, we learn, also, from the various traditions of the Ante-Homeric period, that there existed in it institutions which, through the means of religion, poetry, oracles, and mysteries, had no small influence on the civilisation of the nation and the promotion of culture; for the most part, indeed, in Oriental forms, and perhaps of Oriental origin; and that these institutions, generally of a priestly character, obtained principally in the northern parts of Greece, Thrace, and Macedonia. We must here remark, that intellectual cultivation did not prosper at once in Greece, nor display itself simultaneously among all the tribes; that the Greeks became Greeks only in the process of time, and some tribes made more rapid progress than others. About eighty years after the Trojan war, new commotions and a new migration began within the borders of Greece. A portion of the inhabitants emigrated from the mother country to the islands and to Asia Minor. This change was in the highest degree favourable to Grecian genius; for the

new settlements, abounding in harbours, and destined by nature for commerce and industry, afforded them not only a more tranquil life, but also a wider field for refinement, and gave rise to new modes of life. The ancients ascribed to the colonies in Ionia and Asia Minor the character of luxury and voluptuousness. The blue sea, the pure sky, the balmy air, the beautiful prospects, the finest fruits and most delicious vegetables in abundance, all the requisites of luxury, here united to nourish a soft sensuality. Poetry and philosophy, painting and statuary, here attained their highest perfection; but great and heroic deeds were oftener celebrated than performed. Near the scene of the first grand national enterprise of the Greeks—the Trojan war—it was not strange that the interest it excited should be lively, and that it should take a powerful hold of the imagination. Poetry thus found a subject, in the treatment of which it necessarily assumed a character entirely distinct from that of the former period. Among all nations, heroic poetry has flourished with the spirit of heroism. The heroes were here followed by the bards, and thus the epopee was formed. We therefore call this *second period* the *epic age* of the Greeks. The minstrel (ἀοιδός) now appears separated from the priest, but highly honoured, particularly because the memory of the heroes lived in his verse; and poetry was the guardian of all the knowledge of preceding times, so long as traditions were not committed to writing. From its very nature, the epopee must be historical, in an enlarged sense. Under such circumstances, it is not strange that regular schools for poets were established; for the imagination of the first poet fired the imagination of others, and it was then, perhaps, believed that poetry must be learned like other arts—a belief to which the schools for priests contributed not a little, on which the schools for minstrels were probably modelled. But they were minstrels in the strictest sense, for their traditions were sung, and the poet accompanied his verses on a stringed instrument. On every important occasion, minstrels were present, who were regarded as standing under the immediate influence of the gods, especially of the muses, who were acquainted with the present, the past, and the future. The minstrel, with the seer, thus stood at the head of men. But among the many minstrels which this age undoubtedly possessed, Homer alone has survived. We have from him two great epic poems, the Iliad and Odyssey, with several hymns and epigrams. One mock heroic poem, the *Batrachomyomachy* (the Battle of the Frogs and Mice), is ascribed to him. From him an Ionian school of minstrels takes its name—the *Homeridæ*—who probably constituted, at first, at Chios, a distinct family of rhapsodists, and who preserved the old Homeric and epic style, the spirit and tone of the Homeric verse. Much that is attributed to Homer, may reasonably be assigned to them. The same may be the case with the epic Cyclus, also ascribed to Homer; which brings us to the Cyclic poets, who began, however, to deviate materially from the Ionian epos, the historical element predominating more and more over the poetical. By *Cyclus*, we here understand the whole circle of traditions and fables, and not merely the events of the Trojan war. Cyclic poetry comprehended the whole compass of mythology; and we may, therefore, divide it into, 1. a cosmogonical, 2. a genealogical, and 3. a heroic Cyclus; in the latter of which there are two separate periods; 1. that of the heroes before, and 2. that of those after, the expedition of the Argonauts. To the first class belong the battles of the Titans and giants; to the second, the theogonies and herogonies. To the first period of the third class belong the Europia, several Heracleia and Dionysiacs, several Thebaids, Argonautics, Theseids, Danaids, Amazonica, &c. In the second period, the poetry generally related to the Trojan war. To this belonged the Nostoi, which treated of the return of the heroes from Troy. The earliest of these Cyclic poets appeared about the time of the first Olympiad. A history of the gradual formation of their poetry cannot be given, because we have only very general accounts respecting them. But what we do know justifies us in concluding that between these historic poets and the Ionian school of minstrelsy, something intervened, making, as it were, the transition. And we actually find this in the *Bœotian-Ascrean* school, which arose in European Greece probably about 890 B. C. It derived its name from Ascra in Bœotia, the residence of Hesiod, who stood at its head, and by whom poetry was probably conducted back again from Asia Minor (for he originated from Cumæ in Æolia) to Greece. His works, also, were at first preserved by rhapsodists. They were not arranged till a later period, when they were augmented by foreign additions; so that, in their present form, their authenticity is as doubtful as that of the poems ascribed to Homer. (See *Hesiod.*) Of the sixteen works attributed to him, there have come down to us the Theogony, the Shield of Hercules (the fragment of a larger poem), and Works and Days, a didactic poem on agriculture, the choice of days, intermixed with moral and prudential maxims, &c. These works, especially those of Homer and Hesiod, which acquired a canonical importance, and constituted, in a certain degree, the foundation of youthful education, gave to the character of the Greeks that particular direction, by which it was afterwards distinguished, and which was most strikingly displayed in their religion; which, for want of the necessary dignity, and specially of a caste of priests, was so indefinite, and therefore so fanciful. The mysticism of the first period was, therefore, for the most part, discarded; and in the later Grecian mythology (for that a new system of divinities had arisen cannot be doubted), nothing was seen but the perfection of human nature. Sensuality thence became the characteristic of the Grecian religion, in which no other morality could subsist but that which teaches the enjoyment of the pleasures of life with prudence. Hitherto poetry had been the only instructress of the Grecian world; and it remained so still, when it took another direction. This happened in the *third period*, the age of lyric poetry, of apologues and philosophy, with which history gradually acquired a greater certainty. About the beginning of the epoch of the Olympiads (776 B.C.), there ensued a true ebb and flood of constitutions among the small states of Greece. After numerous vicissitudes of power, during which the contending parties persecuted each other for a long time with mutual hatred, republics, with democratical constitutions, finally sprang up, which were in some measure united into one whole by national meetings at the sacred games. The spirit prevalent in such a time greatly favoured lyric poetry, which now became an art in Greece, and reached the summit of its perfection at the time of the invasion of the Persians. Next to the gods, who were celebrated at their festivals with hymns, their country, with its heroes, was the leading subject of this branch of poetry, on the character of which external circumstances seem to have exercised no slight influence. The mental energies of the nation were roused by the circumstances of the country; and the numerous wars and conflicts, patriotism, the love of freedom and the hatred of enemies and tyrants, gave birth to the heroic ode. Life, however, was at the same time viewed more on its dark side. Thence there was an intermingling of more sensibility in the elegy, as well as, on the other side, a vigorous

reaction, in which the spirit of ridicule gave rise to the iambus (satire). In every thing there was a more powerful impulse towards meditation, investigation, and labour for the attainment of a desired condition. The golden age, the gift of the gods, was felt to have departed. Whatever man discovered in future was to be the fruit of his own efforts. This feeling showed that the age of manhood had arrived. Philosophy had become necessary, and attained continually a greater developement. It first spoke in maxims and gnomes, in fables and in dogmatic precepts. Lyric poetry next gave utterance to the feelings excited by the pleasures of earth. Of those who gained a reputation in this way, as well as by the improvement of music and the invention of various forms of lyric poetry, history presents us the names of Archilochus of Paros, inventor of the iambus; Tyrtæus of Miletus, author of war songs; Callimachus of Ephesus, inventor of the elegiac measure; Alcman, the Lydian; Arion of Methymna, who perfected the dithyrambus; Terpander of Antissa, inventor of the barbitos (a kind of lyre); the tender Sappho of Mitylene; her countryman Alcæus; Erinna, the contemporary of both; Mimnermus of Colophon, the flute player; Stesichorus of Himera; Ibycus of Rhegium; Anacreon and Simonides of Ceos; Hipponax of Ephesus; Timocreon of Rhodes; Lasus of Hermione; Corinna of Tanagra, the friend and instructress of Pindar. As gnomic writers (see *Gnomic*), Theognis, Phocylides, Pythagoras, deserve to be named; as a fabulist, Æsop. In the order of time, several belong to the following period, but are properly placed here, on account of their connexion. If we consider the philosophy of this age, we find it to have generally had a practical character. The philosophy of life must precede the philosophy of science. Philosophy must give lessons of wisdom, before it can furnish scientific systems. In this light must we consider the *seven wise men of Greece*, as they are called (Periander, instead of whom others place Epimenides of Crete or Myon, Pittacus, Thales, Solon, Bias, Chilo and Cleobulus); six of whom acquired their names, not by diving into hidden lore, but by mature experience and the practical wisdom resulting from it, by their prudence and reflection, their skill in affairs of state, in business and the arts. Their sayings are practical rules, originating in the commerce of life, and frequently only the expression of present feelings. But as knowledge is the foundation of science, further investigations resulted in theoretical philosophy. Thales was the founder of the Ionic philosophy. Here we stand on the most important point of the history of the literary development of Greece, where poetry ceases to contain every thing worthy of knowledge, to be the only source of instruction. Hitherto she had discharged the office of history, philosophy, and religion. Whatever was to be transmitted to posterity, whatever practical wisdom and knowledge was to be imparted, whatever religious feelings were to be inspired, recourse was had to her measured strains, which, from their rhythmical character, left a deeper and stronger impression on the memory. Henceforth it was to be otherwise. Civil life was to have an important influence on language. The public transactions, in which the citizen took a part, compelled him to make the language of common life more suitable for public delivery. This and alphabetical writing, that had now become common in Greece, with the introduction of the Egyptian papyrus, prepared the way for the formation of prose. All this had an essential influence on the condition of science. From epic poetry proceeded, by degrees, history. From the practical wisdom conveyed in verse proceeded an investigating philosophy. Our former singleness of view is thus lost. We must now necessarily turn our attention to different sides, and, in the rest of our sketch, follow out each branch separately. Every thing tended to excite the spirit of inquiry, and a scientific activity was every where awakened. We may therefore call the *fourth period*, that now ensued, the *scientific period*. It reaches to the end of Greek literature, but is divided into several epochs, according to the different spirit which predominated, and the superiority which a particular branch acquired at different times. The *first epoch* extends from Solon to Alexander (594—336 B. C.) In philosophy, a physico-speculative spirit was manifested, for philosophy originated immediately from religion, and all religion rests on the conception of the Divinity, which was not then distinguished from nature. Now, since the conception of religion contained nothing but poetical ideas of the origin of the principal phenomena of nature, that is, of the divinities, the most ancient philosophy was, of necessity, natural philosophy, in which the human mind sought to analyze more thoroughly the phenomena previously observed, to explain them more satisfactorily, and to comprehend them in one whole. From the want of sufficient experimental acquaintance with nature, it was to be expected that the imagination would frequently interfere in the work of the understanding and reason. From this cause, these philosophical inquiries are interwoven with poetical images. This was the form of the Ionic philosophy, whose author was Thales; the Italian, whose founder was Pythagoras, and the older and later Eleatic. To the Ionic school, which sought after a material origin to the world, belonged Pherecydes, Anaximander, Anaximenes, Anaxagoras, Diogenes of Apollonia, Anaxarchus, and Archelaus of Miletus. The principal disciples of the Pythagorean philosophy, which referred the organization of the world to number and measure, were Alcmæon, Timæus of Locris, Ocellus Lucanus, Epicharmus, Theages, Archytas, Philolaus, and Eudoxus. To the older Eleatic school, which held the idea of a pure existence, belonged Xenophanes, Parmenides: to the later, Zeno, Melissus, and Diagoras. With this is connected the atomic school of Leucippus and Democritus, and the dualist, Empedocles. On the other hand, Heraclitus stands alone in his theory of the eternal flow of things. Till near the ninetieth Olympiad, the philosophers and their scholars were dispersed through all the Greek cities. About this time, Athens became their principal place of residence, which contributed not a little to breathe another spirit into philosophy, the Sophists becoming the teachers. Gorgias of Leontium in Sicily, who joined the Eleatics, Protagoras of Abdera, Hippias of Elis, Prodicus of Cos, Trasimacus, and Tisias are the most celebrated whose names have reached us. Their name designates them as men of science; and they were, in fact, the encyclopædists of their times, who collected the ideas and sentiments of the former ages, and enriched them with their own. They were particularly distinguished in rhetoric and politics, two sciences so highly important in democratic forms of government; but, not contented with this, they also professed the natural sciences, mathematics, the theory of the fine arts, and philosophy. In the last, it does not seem to have been their object to arrive at truth, but only to make a plausible argument; and for this end were formed sophistics and eristics, or the art of reasoning, which was afterwards called *dialectics*; in which their object was to prove every thing they wished. For this they invented those fallacies, still called, from them, *sophistries*, and sought to lead their opponents astray by various means. That this must needs be detrimental to true philosophy is evident. So much the more fortunate was it that, in this very age Socrates appeared, who

was not only a strenuous antagonist of these Sophists, but opened a new career to philosophy itself. It has been justly said of him, that he brought down philosophy from heaven to earth, for he gave it again a practical direction, differing, however, from the former, since the object was no longer merely to string together experiments, but philosophers began to investigate the nature and relations of man, the object and best regulation of life; and reflection was turned principally to psychology and morals, instead of physics and metaphysics. Socrates had many scholars, some of whom committed his ideas to writing in his manner—Cebes, Æschines, Xenophon; others, deviating more or less from his ideas and his manner, were founders of philosophical schools of their own. The four following schools proceeded from that of Socrates: 1. the Cyrenaic, whose founder was Aristippus of Cyrene (see *Aristippus*); 2. the Megaric, Elian and Eretrian, under Euclid, Phædon, and Menedemus; 3. the Academic, whose founder was Plato; and 4. the Cynic, whose founder was Antisthenes. Plato (q. v.) was unquestionably the most comprehensive and splendid genius. With the philosophical knowledge of the former Greek philosophers, he combined that of the Egyptian priests, and the eloquence of the Sophists. A fondness for the supernatural, a delicate moral sense, a fine, acute, and profound understanding, reign in his productions, which are adorned with all the graces of expression, and are enlivened by a rich imagination. By his poetic talent, the philosophical dialogue of Socrates was presented under a truly dramatic form. While philosophy was making such important progress, history rapidly approached perfection. In the period of 550—500 B. C., traditions were first committed to writing in prose, and Cadmus, Dionysius, and Hecatæus of Miletus, Acusilaus the Argive, Hellanicus of Mitylene, and Pherecydes of Scyros are among the oldest historical writers. After them appeared Herodotus (q. v.), the Homer of history. His example kindled Thucydides to emulation, and his eight books of the history of the Peloponnesian war make him the first philosophical historian, and a model for all his successors. If his conciseness sometimes renders Thucydides obscure, in Xenophon, on the contrary, there prevails the greatest perspicuity; and he became the model of quiet, unostentatious historical writing. These three historians are the most distinguished of this period, in which we must, moreover, mention Ctesias, Philistus, Theopompus, Euphorus, who, however, abandoned the genuine style of historical narration for a rhetorical affectation. An entirely new species of poetry was created in this period. From the thanksgiving festivals, which the country people solemnised after the vintage, in honour of the giver of joys, with wild songs and comic dances, arose, especially in Attica, the drama. By degrees, variety and a degree of art were given to the songs of the chorus, or dithyrambics, at the sacrifice of the goat, which, in the process of time, became more serious, while an intermediate speaker related popular fables, and the chorus varied the eternal praises of Bacchus by moral reflections, as the narration prompted. Their reward, if they gave satisfaction, was a goat. Sportive dances were introduced, mingled with waggish pranks and every thing to excite laughter. These games of the feast of the vintage were soon repeated on other days. Solon's contemporary, Thespis, who smeared his actors, like vintagers, with lees of wine, exhibited at the cross ways or in the villages, on movable stages, stories sometimes serious with solemn choruses, sometimes laughable with dances, in which satyrs and other ridiculous characters excited laughter. Their representations were called tragedies (τραγῳδαι), that is, songs of the sacrifice of the goat, or τραγος ᾠδη, songs of the vintage; comedies, festive dances, and satirical actions (*drama satyricum*). These sports were finally exhibited, with much more splendour, on the stages of the towns, and acquired a more and more distinct character, by their peculiar tone and morality. Instead of an intermediate speaker, who related his story extemporaneously, Æschylus first substituted actors, who repeated their parts by rote; and he was thus the actual creator of the dramatic art, which was soon carried to perfection; tragedy by Æschylus, Sophocles, Euripides; comedy by Cratinus, Eupolis, Crates, but especially by Aristophanes. Under the government of the thirty tyrants, the freedom which comedy had possessed, of holding up living characters to ridicule, was restricted, and the middle comedy was thus gradually formed, in which the chorus was abolished, and, with delineations of general character, characteristic masks were also introduced. In this, Aristophanes and Alexis were distinguished. The mimes of Sophron of Syracuse, dramatic dialogues in rhythmical prose, formed a distinct species, in connexion with which stands the Sicilian comedy of Epicharmus. In the order of time, several gnomic and lyric writers belong to this period. Several philosophers appeared as didactic poets—Xenophanes, Parmenides, Empedocles; as epic poets, Pisander and Panyasis were famous for their Heracles, and Antimachus for his Thebaid. The epic soon became more and more historical, and lost its beautiful poetic aspect. With poetry, her severer sister, eloquence, also flourished in this period, which republican constitutions rendered necessary, and which the Greek character speedily elevated to the rank of a fine art. Antiphon, Gorgias, Andocides, Lysias, Isocrates, Isæus, Demosthenes, Æschines, were highly appreciated as masters of this art, for which schools were actually established. We still possess the admired masterpieces of several of these orators. How near rhetoric was then to triumphing over poetry, is manifested in Euripides, and there is no question that it had a considerable influence on Plato and Thucydides. Mathematics was now cultivated, and geography served to illustrate history. Astronomy is indebted to the Ionic school, arithmetic to the Italian, and geometry to the Academic school for many discoveries. As mathematicians, Theodorus of Cyrene, Meton, Euctemon, Archytas of Tarentum, Eudoxus of Cnidus, were celebrated. Geography was, particularly, enriched by voyages of discovery, which were occasioned by commerce; and, in this view, Hanno's voyage to the western coast of Africa, the Periplus of Scylax, a description of the coasts of the Mediterranean, and the discoveries of Pythias of Massilia in the north-west of Europe, deserve mention. The study of nature was likewise pursued by the philosophers; but the healing art, hitherto practised by the Asclepiades in the temples, constituted a distinct science, and Hippocrates became the creator of scientific medicine. The following period is usually called the *Alexandrine*, and might be characterised as the *systematizing* or *critical period*. Athens did not, indeed, cease to sustain its ancient reputation; but Alexandria was, in reality, the leading city. From this cause, the spirit of Grecian literature necessarily took another turn; and it is evident, that the use of an immense library must necessarily have made erudition triumph over the former free action of mind, which, however, could not be immediately suppressed. In philosophy, Plato's acute and learned disciple, Aristotle, appeared as the founder of the Peripatetic school, which gained distinction by enlarging the territory of philosophy, and by its spirit of system. He separated logic and rhetoric, ethics and politics, physics and metaphysics (to which last

science he gave its name), and applied philosophy to several branches of knowledge; thereby producing economics, pedagogics, poetics, physiognomics. He invented the philosophical syllogism, and gave philosophy the form which it preserved for centuries. His disciple, Theophrastus, followed his steps, in the investigation of philosophy and natural history. But the more dogmatic was the philosophy of Aristotle, the more caution was requisite to the philosophical inquirer, and the spirit of doubt was salutary. This was particularly exhibited in the system of scepticism which originated with Pyrrho of Elis. A similar spirit, at least, subsisted in the middle and new academies, of which Arcesilaus and Carneades were the founders. The Socratic school put forth new branches in the Stoic school, founded by Zeno of Citium in Cyprus, and the Epicurean, of which Epicurus of Gargettus in Attica was the founder. Mathematics and astronomy made great progress in the schools at Alexandria, Rhodes, and Pergamus. And to whom are the names of Euclid, Archimedes, Eratosthenes, and Hipparchus unknown? The expeditions and achievements of Alexander furnished abundant matter to history; but, on the whole, it gained in extent, not in value, since a taste for the wonderful had now become prevalent. The more gratifying, therefore, is the appearance of Polybius of Megalopolis, about the end of this period, who is to be regarded as the author of true historical description, by which universal history acquired a philosophical spirit and a worthy object. Geography, which Eratosthenes made a science, and Hipparchus united more closely with mathematics, was enriched in various ways. To the knowledge of countries and nations much was added by the accounts of Nearchus and Agatharchides, and to chronology by the Parian chronicles. With respect to poetry, many remarkable changes occurred. In Athens, the middle comedy gave place, not without the intervention of political causes, to the new, which approaches to the modern drama, as it took the moral nature of man for the subject of its representations. Among the thirty-two poets of this class, Menander, Philemon, and Diphylus were eminent. From the mime proceeded the idyl, in which branch of poetry, after the period of Stesichorus, Asclepiades, etc., Theocritus, Bion, and Moschus were particularly celebrated. The other kinds of poetry did not remain uncultivated; but all these labours, as well as the criticisms of poetry and the fine arts, point to Alexandria; and we shall therefore pass them over in this place. At the end of this period, Greece ceased to be independent; and Rome, the queen of empires, established her dominion over it. See the continuation of this subject, under the articles *Alexandrian School*, and *Roman Literature*.

Greece, Revolution of Modern. For the history of Greece under the Eastern empire, see *Byzantine Empire*; and for the period from the downfall of this empire to the late revolution, see *Turkey*, and *Venice*.

For centuries, the name of Greece possessed a melancholy celebrity in the political history of Europe. In the primitive seat of European civilization, amid the noblest ruins of the ancient world, one people has preserved its existence through the wild tempests of Asiatic conquerors, and has recently contended with the enemies of Christianity and civilization, like a shipwrecked mariner with the waves, for life and freedom, whilst Christian Europe beheld the death-struggle, for seven years, without coming to any resolution which posterity will consider as due from this age. From the year 1821, Europe saw the Greeks asserting a national existence; but she considered this as the effort of despair, and, from day to day, expected to see the last sparks of Grecian life extinguished. She therefore withheld, for years, the assistance that was prayed for. Europe did not see, in the oppressors of this people, a powerful state, resting on firm foundations, but rather expected every day the dissolution of this hollow mass of seraglio slaves and janissaries. The jealous policy, both of the neighbouring and distant powers, had thus far supported the falling state, and therefore a contest, strange as it was terrible, was prolonged before our eyes, between a state and a people, both of whom stood equally near destruction. The Sublime Porte appeared so little in a condition to conquer the Greeks, that it called from Africa the boldest and most powerful of its satraps, that he might exterminate the men of Greece, send their wives and children as slaves to the Nile, and spread Africans over the land of classic reminiscences. Even Frenchmen offered their aid to subjugate the Morea. Had the powerful viceroy of Egypt succeeded in uniting under one government the Ægean sea, the Peloponnesus, Crete, and the land of the Nile, then this Egyptian dynasty, like the ancient Fatimites, would have been in a situation to rule the Mediterranean sea, to close the Dardanelles, to give laws to the trade of the Levant, and to invade Italy. Then would Greece, that venerable ruin of classical antiquity, have been for ever annihilated. The Porte, called the *key-stone of the European arch*, would hardly have been the shadow of the last caliphs of Bagdad. Europe would have numbered a new Sesostris among her monarchs. God be thanked that the result of the conflict has been more auspicious!

The Turks and Greeks never became one nation; the relation of conquerors and conquered never ceased. However abject a large part of the Greeks became by their continued oppression, they never forgot that they were a distinct nation; and their patriarch at Constantinople remained a visible point of union for their national feelings. (See Ranke's *Fursten und Volker*, &c., Berlin, 1827.) The Greeks had been repeatedly called upon by Russia to shake off the Turkish yoke, as in 1769, 1786 and 1806. The last revolution broke out in March, 1821. As early as 1809, a society had been formed at Paris for the liberation of Greece. In 1814, the *Hetaireia* (q. v.) was formed in Vienna, but the revolution began too early for their plans. Coray (q. v.) with many others, as Mustoxydy, Gasy, Ducas, Cumas, Bambas, Gorgorios, Oiconomos, Capetanaki, exerted themselves to enlighten their nation, and to prepare it, by a better education, for a struggle for liberty. Similar views had been entertained fifty years earlier, by several Greeks, in different parts of the country, among whom were Panagiotis, Mavrocordato, and Demetrius Cantemir. In Greece itself, several attempts were made to revive the study of the ancient language, and with it a taste for letters, civilization and liberty. This was particularly the case in the islands (see *Hydriots*), where intercourse with France, and even with the United States, contributed to hasten the revival of a thirst for liberty. The works of Fénélon, Beccaria, Montesquieu, and those of some German scholars; also Goldsmith's Greece and Franklin's Poor Richard, were translated into modern Greek. At Athens, Saloniki, Yanina, Smyrna, Cydonia (Aivali), Bucharest, Jassy, Kuru-Tschesme (a village on the European shore of the Bosphorus), in Scio &c. schools were established. But the war has destroyed all these schools, with the exception of that on mount Athos. Rhigas (q. v.) animated the spirit of his countrymen by his songs. In addition to all this, the wretched state of Turkey, weak from without and within; every thing, in short, seemed favourable, when the precipitancy of one or a few individuals,

was the origin of infinite mischief, because the cause of liberty was not yet ripe. February 1, 1821, prince Charles Calimachi was appointed, by the Porte, hospodar of Walachia, in the place of the deceased Alexander Suzzo. The fear of new exactions (which take place, in that country, with every new governor), produced commotions among the people of Walachia; and this excitement seemed to the members of the *Hetaireia* in St Petersburg, to afford a favourable moment for taking up arms against the Turks, in which they expected to be supported by the Russian cabinet. Without knowing any thing of this plan, a Walachian, Theodore Wladimiresko, left Bucharest, January 30, with sixty pandoors, and instigated the peasants to revolt, promising them the protection of Russia and the restoration of their old rights. The Arnaouts, who were sent against him, joined him, and he soon became master of Little Walachia, at the head of 5000 men. The Greeks in Moldavia likewise rose, under prince Alexander Ypsilanti (q. v.), a major-general in the Russian service. This insurrection was connected with the *Hetaireia*. (q. v.) Perhaps the object was to hasten the threatened breach between Russia and Turkey. Besides the Greeks always relied much on the (so called) *Greek project of Catharine II.* March 7, 1821 (Feb. 23, old style), a proclamation of Ypsilanti was placarded in Jassy, under the eyes of the hospodar Michael Suzzo, which declared, that all the Greeks had, on that day thrown off the Turkish yoke; that he would put himself at their head with his countrymen; that prince Suzzo wished the happiness of the Greeks; and that nothing was to be feared, as a great power was going to march against Turkey. Several officers and members of the *Hetaireia* had accompanied Ypsilanti from Bessarabia and Jassy. Some Turks were murdered, but Ypsilanti did all in his power to prevent excesses, and was generally successful. He wrote to the emperor of Russia, Alexander, who was then at Laybach (q. v.), asking his protection for the Greek cause, and the two principalities, Walachia and Moldavia; but the revolutions in Spain and Piedmont had then just broke out, and that monarch considered the Greek insurrection to be nothing but a political fever, caught from Spain and Italy, which could not be checked too soon (besides, Ypsilanti was actually in the service of Russia, and therefore had undertaken this step against the rules of military discipline). Alexander publicly disavowed the measure, Ypsilanti's name was struck from the army rolls, and he was declared to be no longer a subject of Russia. The Russian minister, and the Austrian internuncio at Constantinople, also declared that their cabinets would not take advantage of the internal troubles of Turkey in any shape whatever, but would remain strictly neutral. Yet the Porte continued suspicious, particularly after the information of an Englishman had led to a detection of some supposed traces of the Greek conspiracy at Constantinople. It therefore ordered the Russian vessels to be searched, contrary to treaty. The commerce of Odessa suffered from this measure, which occasioned a serious correspondence between baron Stroganoff, the Russian ambassador, and the reis effendi. The most rigorous measures were taken against all Greeks: their schools were suppressed; their arms seized; suspicion was a sentence of death; the flight of some rendered all guilty; it was prohibited under penalty of death; in the divan, the total extinction of the Greek name was proposed; Turkish troops marched into the principalities; the hospodar Suzzo was outlawed; the patriarchs of Constantinople and Jerusalem excommunicated all insurgents (March 21); and a hatti-sheriff of March 31, called upon all Mussulmans to arm against the rebels for the protection of the Islam; no Greek was, for some time, safe in the streets of Constantinople; women and children were thrown into the sea; the noblest females openly violated, and murdered or sold; the populace broke into the house of Fonton, the Russian counsellor of legation; and prince Murusi was beheaded in the seraglio. After the arrival of the new grand-visier, Benderli Ali Pacha (appointed, April 10), who conducted a disorderly army from Asia to the Bosphorus, the wildest fanaticism raged in Constantinople. In Walachia and Moldavia, the bloody struggle (not the devastation of the country, however,) was brought to a close through the treachery, discord, and cowardice of the pandoors and Arnaouts, with the annihilation of the valiant "sacred band" of the *Hetaireia*, in the battle of Dragashan (June 19, 1821), and with Jordaki's heroic death in the monastery of Seck. (See *Ypsilanti*.) In Greece Proper, no cruelty could quench the fire of liberty; the beys of the Morea invited all bishops and the noblest Greeks *(proëdroi)* to Tripolitza, under pretence of consulting with them on the deliverance of the people from their cruel oppression. Several fell into the snare: when they arrived, they were thrown into prison. Germanos, archbishop of Patras, alone penetrated the intended treachery, and took measures with the others for frustrating the designs of their oppressors. The beys of the Morea then endeavoured to disarm the separate tribes; but it was too late; the Mainotes, always free, descended from mount Taygetos, in obedience to Ypsilanti's proclamation, and the heart of all Greece beat for liberty.

The revolution in the Morea began, March 23, 1821, at Calavrita, a small place in Achaia, where eighty Turks were made prisoners. On the same day, the Turkish garrison of Patras fell upon the Greek inhabitants; but they were soon relieved. In the ancient Laconia, Colocotroni and Peter Mavromichalis roused the people to arms. The archbishop Germanos collected the peasants of Achaia. In Patras and the other places, the Turks retreated into the fortresses. As early as April 6, a Messenian senate assembled in Calamata, and the bey of Maina, Peter Mavromichalis, as commander-in-chief, proclaimed that the Morea had shaken off the yoke of Turkey to save the Christian faith, and to restore the ancient character of their country. "From Europe, nothing is wanted but money, arms, and counsels." From that time, the suffering Greeks found friends in Germany, France, Switzerland, Britain and the United States, who sympathised with them, and did all in their power to assist them in their struggle. The cabinets of Europe, on the contrary, threw every impediment in the way of the Hellenists, until they were finally obliged, against their inclination, to interfere in their favour. Jussuf Selim pacha of Lepanto, having received information of these events from the diplomatic agent of a European power, hastened to relieve the citadel of Patras, and the town was changed into a heap of ruins. The massacre of the inhabitants, April 15, was the signal for a struggle of life and death. Almost the whole war was thenceforward a succession of atrocities. It was not a war prosecuted on any fixed plan, but merely a series of devastations and murders. The law of nations could not exist between the Turks and Greeks, as they were then situated. The monk Gregoras, soon after, occupied Corinth, at the head of a body of Greeks. The revolution spread over Attica, Bœotia, Phocis, Ætolia and Acarnania. The ancient names were revived. At the same time, the islands declared themselves free. In the beginning of April, the wealthy merchants and ship-owners, the bold mariners of Hydra, Spezzia and Ipsara, see

Hydriots), long before gained over to the cause of liberty by Bambas* and other patriots, erected an independent government in Hydra. They fitted out their vessels for war, and the blue and red flag of the *Hetaireia* soon waved on 180 vessels, mostly of ten or twelve guns.† It must be remembered that the inhabitants of the islands, particularly those just mentioned, and the heroic population of Suli, are very different from the people of the Morea and Livadia, if we wish to form a correct understanding of the Greek struggle. While the conduct of the Moreots has but too often drawn on them the just reproach of their compatriots, the former have gained a name in history, which will be honoured as long as an invincible love of liberty and bold and inflexible courage in an unequal struggle are prised. Even women, among the islanders, took arms for liberty, and, among them, Lascarina Bobolina, of Spezzia, was distinguished. The Hydriots cruised in the Turkish waters, and blockaded the ports. In some islands, the Turks were massacred in revenge for the murder of the Greeks at Patras, and, in retaliation, the Greeks were put to death at Smyrna, in Asia Minor, and in those islands which had not yet shaken off the Turkish yoke. The exasperation was raised to its highest pitch by the cruelties committed against the Greeks in Constantinople, after the end of March. On mere suspicion, and often merely to get possession of their property, the divan caused the richest Greek merchants and bankers to be put to death. The rage of the Mussulmans was particularly directed against the Greek clergy. April 22, Gregory (q. v.) the patriarch of Constantinople, was murdered, with his bishops, in the metropolis. In Adrianople, May 3, the venerable patriarch Cyrillus, who had retired to solitude, and Proesos, archbishop of Adrianople, and others, met the same fate. Several hundred Greek churches were torn down, without the divan paying any attention to the remonstrances of the Christian ambassadors. The savage grand-vizier, indeed, lost his place, May 1, and soon after his life; but Mahmud (q. v.), and his favourite Halet effendi, persisted in the plan of extermination. The courageous Stroganoff (q. v.) was yet less able to make his remonstrances heard, after the grand seignior, in order to save his favourite, who was hated by the janizaries, on account of his plan of reform in the military department, gave a seat, in the divan, to three members of those riotous troops. The commerce of Russia, on the Black sea, was totally ruined by the blockade of the Bosphorus, and the ultimatum of the ambassador was not answered. Baron Stroganoff, therefore, broke off all diplomatic relations with the reis effendi, July 18, and, July 31, embarked for Odessa. He had declared to the divan, that if the Porte did not change its system, Russia would feel herself obliged to give "the Greeks refuge, protection, and assistance." The answer of the reis effendi to this declaration, given too late, was sent to Petersburg; but it was only after the most atrocious excesses committed by the janizaries, and the troops from Asia (for instance, in Constantinople, June 27 and July 2), that the foreign ministers, particularly the British minister, lord Strangford, succeeded in inducing the grand seignior to recall the command for the arming of all Mussulmans, and to restore order. The Porte even promised an amnesty, on condition of the submission of the Greeks; but what guarantee was there for the fulfilment of it? Individual executions still continued. Prince Calimachi, hospodar of Walachia, was sent, with his family, to Asia Minor, where he suddenly died on hearing of the execution of his brother. The old families of the Fanariots (q. v.) no longer existed in Constantinople, and, after all the cruelties they had suffered, the Greeks could not trust the amnesty of the sultan. They remembered, too, the 300,000 Moreots, who had been murdered by the orders of a former sultan, though their pardon had been stipulated with Catharine II. Their hopes were also strengthened by the war which broke out between Turkey and Persia, and they never gave up the confidence that the "*Moscoviti*" would at last arm for their protection, which Russia had taken upon herself in the three last treaties with the Porte. Meanwhile the Turkish general in Epirus, Khurshid Pacha, who was besieging the rebel Ali (q. v.), in Yanina, had sent troops against the Suliots, into the Morea and to Thessaly. But the Ætolians under Rhangos, and the Acarnanians under the brothers Hyscus, obliged the Turks to shut themselves up in Arta, and made themselves masters of Salona. Ulysses put himself at the head of some Armatolics (q. v.), in Thessaly, and the archimandrite, Anthymos Gasis, called the peasants to arms. In Eubœa (Negropont), all the peasants took up arms, and obliged the Turks to shut themselves up in the fortified cities; but these movements were not decisive, because they took place without co-operation; and, in fact, nothing was effected, but the driving the Turks from the country into the cities. The pacha of Saloniki delivered the pacha who was besieged in Larissa. Omer Vrione, the lieutenant of Khurshid Pacha, entered Livadia; the inhabitants of Athens fled to the islands; the Acropolis was garrisoned by Turks. The Greeks afterwards retook Athens, and attempted to reduce the Acropolis by famine; but it was relieved by Omer Vrione, July 30, 1821, and the inhabitants of Athens again fled to Salamis. On the Achaian sea, Greek and other pirates frustrated the plans of the *navarchs* (admirals) in Hydra, and the European powers were obliged to protect their vessels by cruisers. In the general confusion, the islanders distinguished themselves by their valour in battle, and their greater order in the organization of government; and if much complaint has been made against their piracies, it must be remembered, that the convulsed state of things offered great temptations to piracy; that the government was too weak to repress it; and that, privateering being lawful against the Turks, it was not strange that a people, so much removed from the influence of European civilization, exceeded the legitimate limits of private warfare. The Greek sailors were bolder and much more expert than the Turkish, their vessels much swifter. In fact, we can hardly imagine a navy in a more wretched state of discipline than the Turkish. When, therefore, the first Turkish squadron left the Dardanelles, May 19, the Greeks constantly pursued it with their fire ships, avoiding; at the same time, a general engagement; and, June 8, they attacked a vessel of the line, which had got ashore at Tenedos, burned it, and compelled the rest of the squadron to put back to the Dardanelles. June 15, the Ipsariots landed on the coast of Asia Minor, and took possession of the ancient Cydonia, now the Greek city of Aivali; but, after they had retired, the Turks burned the city, and 35,000 inhabitants either perished or were driven from their homes. The ill success of their expedition added fresh fuel to the rage of the Turks. The Greeks in the island of Candia, who had avoided all participation in the insurrection, were disarmed, and their arch-

* Neophytos Bambas, teacher of natural philosophy and mathematics in the school of Scio, published, in 1818, in Venice, a manual of moral philosophy, which is one of the most valuable productions of modern Greek literature. He has since been professor in the Ionian university, in Corfu, established by the influence of lord Guilford.

† According to Pouqueville, the mercantile marine of the Greek islands consisted of 615 vessels, with 17,500 men and 5078 guns.

bishop and several clergymen executed. But the peasants in the mountains, and the inhabitants of the small island Sphakia, called the *Suliots of Candia*, refused to give up their arms, collected, and drove the Turks back again into the towns. From that time, the struggle continued, and the Turks, though supported by several thousand men from Egypt, were never again able to make themselves masters of the highlands. They, however, maintained themselves in the cities. Madden, in his Travels in Egypt, &c., gives some interesting details of the Egyptian expedition to Candia. On the island of Cyprus, where also there had been no appearances of an insurrection, the Greeks were disarmed in November, 1821, and almost all the inhabitants of Larnica, with the archbishop and other prelates, murdered. The peasants united for mutual protection; as a punishment for which sixty-two villages were burned in August, 1822. Since that time, the stillness of the grave has brooded over Cyprus. Similar atrocities were committed by the Turks at Scala Nuova, in Rhodes, and at Pergamos, after the Greeks had surprised the latter place. In Smyrna, also, new cruelties were committed; and the European consuls did not succeed until November, 1821, in inducing the pacha to put a stop to the enormities of the Turks. Since that time, the public security has rarely been interrupted in that place.* But in the European provinces of Turkey, the cruelties against the Christians continued, as the sultan had issued a *hatti-sheriff* (September 20, 1821, calling upon all Mussulmans to take arms against the Giaours. This order was not published in Constantinople, for which the populace, in that place, revenged themselves by setting fire to the city, whenever ill news of success exasperated them against the Greeks.

The great Turkish fleet, under the capudan pacha Kara Ali, strengthened by Egyptian, Tunisian, and Algerine vessels, had, indeed, driven away the Greek flotillas, supplied the Turkish garrisons in the Morea with troops, arms, and provisions, burned the small village of Galaxidi, in the gulf of Lepanto, October 2, 1821, and taken some small Greek fishing craft in the harbour of this place. Yet the fleet had effected nothing decisive. Hardly had it returned to the Dardanelles, October 22, 1821, when the Greek fleets renewed their system of blockade, and became, as formerly, masters of the Ægean sea and the gulf of Saloniki. Meanwhile, Demetrius Ypsilanti had arrived at Hydra, with prince Alexander Cantacuzeno, with authority from his brother, Alexander Ypsilanti. In Hydra, the unfortunate result of the struggle in Walachia was not yet known. Demetrius promised the aid of Russia, and announced the restoration of the Greek empire. Yet it was with great difficulty that he succeeded in being appointed, on July 24, 1821, *archistrategos* (commander-in-chief) of the Peloponnesus, the Archipelago, and all the liberated provinces; and, as such, in being placed at the head of the Greeks in the Morea, where the dissensions among the *capitani*, and the undisciplined state of the soldiery, had a most injurious effect. Soon after (August 3), the principal Turkish fortress, Monembasia (Napoli di Malvasia) surrendered to prince Cantacuzeno, and Navarino to Demetrius Ypsilanti; but the rapacious Moreots did not observe the articles of capitulation. Some details of what happened after the capitulation of Navarino are related in the editor's Journal in Greece (in German, Leipsic, 1823). Demetrius, disgusted at this disorder, declared his intention to leave Greece, unless he was invested with power to put a stop to this licentiousness, which he received at least nominally. At the same time, the senate of Calamata united with that of Hydra, in order to assemble a congress of deputies from all Greece, at Calamata. Whilst Mavrocordato and others were making these preparations, Demetrius Ypsilanti was closely besieging Tripolissa, the chief fortress of the Turks, situated in the plain of Mantinea, in the centre of Greece. The garrison was on the point of surrendering, when the appearance of the Turkish fleet, in the waters of the Peloponnesus, gave them new courage. But in order to induce the Turkish troops to make an obstinate resistance, from fear of the vengeance of the Christians, the Turkish commanders, at Tripolissa, ordered eighty priests and noble Greeks, who had been brought there, in part, by the treacherous invitations of the beys, to be all murdered, excepting two. October 5, after 2000 Albanians had received permission to depart, and the negotiations with the Turks were broken off, Tripolissa was taken by storm. The last post was surrendered, on terms of capitulation, by the gallant Kiaja Bey; but the Moreots could not be restrained, and 8000 Turks perished. Even the Albanians were attacked, and some of them plundered. In Tripolissa, the Moreots gained their first heavy cannon, and the place became the seat of the *soi-disant* Greek government, until it was transferred to Argos.

Ulysses was equally successful in Thessaly. He and some other guerilla leaders, or *capitani*, among whom was Perevos, on September 5 and 6, near Thermopylæ, defeated a Turkish army, which had advanced from Macedonia. January 26, 1822, the Acrocorinthus (q. v.) fell into the hands of the Greeks by capitulation. On the other hand, the pacha of Saloniki took the peninsula of Cassandra, November 11, by storm, the Greeks having become enfeebled by dissensions. 3000 Greeks were put to the sword, women and children carried into slavery, and the flourishing peninsula made a desert. The monks and hermits on mount Athos (Monte Santo) alone saved themselves by a heavy ransom, and remained undisturbed, because the Turks consider these rocky hermitages sacred. At the same time, Khurshid Pacha, November 13, assaulted Ali's fortress Zatharica, and the old tyrant of Epirus in vain expected succour from the Greeks in his last place of refuge, a castle in the lake near Yanina. The Greeks, towards the end of November, having occupied Arta, without obtaining possession of the citadel, were obliged to leave the city in the middle of December, when Omer Vrione returned from Livadia, and disperse themselves in the mountains. During this irregular war, the government began to acquire some form, as the separate senates established connexions with each other. They invested Demetrius Ypsilanti with the chief command in the Morea, Ulysses with the same office in Thessaly, and somewhat later also in Attica. Prince Mavrocordato received the chief command in the Albanian provinces. They finally sent prince Cantacuzeno to the emperor Alexander, to implore his assistance: but the prince could not obtain passports for St Petersburg, because the system of the holy alliance was *neutrality* (as they called it), and discouragement of the Greek insurrection. Equally unsuccessful were the *navarchs*, in Hydra, in their attempts to secure the neutrality of the viceroy of Egypt by sea, as he now hoped for an opportunity of uniting Crete with Egypt.

First Attempt towards a Political Organization of the Greeks, January 13 (*January* 1), 1822, *in Epi-*

* Here, and in other places, the commanders of French, English, Austrian, and American vessels, and the European consuls, among whom the French consul, David, deserves to be particularly mentioned, saved the lives of many unfortunate persons, who would otherwise have become the victims of Turkish or Greek fanaticism.

rarus, until the second National Assembly in Astro, March, 14, 1823. With the greatest difficulty, Mavrocordato and some prelates had succeeded in giving somewhat of a federative constitution and a central government to a country which was by no means yet entirely freed from the Turks, and was occupied by parties often hostile to each other. The Western part of Greece—Acarnania, Ætolia, and Epirus, sent thirty deputies to Missolonghi, who, under the presidency of Alexander Mavrocordato, formed a government or *gerousia*, November 4, 1821, consisting of ten members; the eastern part of the main-land, comprising Attica, Bœotia, Eubœa, Phocis, Locris, Doris, Œtolæ, Thessaly, and Macedonia, sent thirty-three deputies to Salona, who, under the presidency of Theodore Negris, formed, on the 16th of November, the areopagus of fourteen members. The Morea, or the Peloponnesus, with the islands of Hydra, Ipsara, Spezzia, &c., sent sixty deputies to Argos, who assembled, December 1, under the presidency of prince Demetrius, and established the Peloponnesian *gerousia* of twenty members. These three governments were to prepare a permanent constitution, which was to receive, in future, such amendments as experience should suggest. For this purpose, sixty-seven deputies from all the provinces of Greece formed the first national assembly in Epidaurus, January 10, 1822, under the presidency of Mavrocordato, which, January 13, the Greek new year's day, proclaimed a provisionary constitution. Its principles were the following: the annual election of all chief magistrates of the provinces, districts and communities; laws were to be made by the concurrent vote of the deliberative and executive councils; the execution of laws was to rest with the executive council, which appointed the eight ministers; the independence of the judiciary was to be provided for; this branch of government was to be exercised by the district, provincial and supreme courts. The congress then elected the thirty-three members of the legislative and the five members of the executive council. Mavrocordato was elected *proëdros*, or president; Theod. Negris, secretary of state of the executive council; Ypsilanti, who had expected this place, was appointed president of the legislative council, but never discharged the duties of his office. Finally, the congress of Epidaurus issued a manifesto, January 27, 1822, in which they pronounced the union of the Greeks under an independent federative government. The operation of this was not so beneficial as had been expected. A people so long enslaved, and so deficient in civilisation, could not at once establish a wise and firm government. The central government fixed its seat at Corinth, and, at a later period, again at Argos. The Porte was now obliged to divide its forces. One army was unsuccessfully employed in Armenia on the Euphrates, against the Persians; another was stationed on the Danube, to observe the Russian army in Bessarabia. But Ali's fall encouraged the Porte, and it was with difficulty that the Austrian and English ministers could convince the divan of the peaceable intentions of Alexander. But, in 1822, at the request of Russia, the sultan ordered the restoration of some Greek churches, and the election of a new patriarch in the usual way. The choice fell upon Anthymos, bishop of Chalcedon. He was treated with respect, for the purpose of inducing the Greeks to accept the amnesty. The Asiatic hordes, in May, 1822, evacuated the principalities of Walachia and Moldavia, after committing every kind of excess; in July, new hospodars were appointed—Ghika for Walachia, and Stanka for Moldavia; both were Boyards, and Greeks were excluded from all offices in the principalities. The new hospodars were under the superintendence of Turkish serakiers, and European Turks continued to occupy the principalities; they were, however, withdrawn from Jassy, which they burned and pillaged, August 10, 1822, enraged at the orders of the divan. Meanwhile, the year 1822 had produced important results in Greece, because both parties had followed, in some sort, a military plan of operations. After Ali's fall, Khurshid Pacha in Thessaly determined to collect reinforcements from Rumelia, in order to conquer Livadia and the Morea, whilst in February and March, 1822, a Turkish fleet, under Hali Bey, was to reinforce the garrisons in the Morea, so that Jussuf Pacha, from Patras and Lepanto, could support Khurshid's attack upon the isthmus and his invasion of the Morea. But the attempt of the Turkish fleet to reduce the Morea by fresh troops, totally failed, and the opposition of the Suliots kept back the serakier in Epirus. These events gave Colocotroni time to shut up the troops which had been landed in Patras, and to send assistance to Acarnania. At the same time, new insurrections broke out in several places, which, again divided the power of the Turks. The misfortune of Scio saved the Greek main-land. The numerous Greek population of the flourishing and defenceless island of Scio (see *Scio*) had declined every invitation to engage in the revolution; but, in March 23, 1822, a Greek fleet from Samos, under Logotheti, having appeared upon the coasts, the peasants, who laboured under the greatest oppressions, took up arms. Great disorders occurred, and the Turks, after having taken eighty hostages from among the richest inhabitants of the city, retired into the citadel. At this moment, the Turkish fleet made its appearance. In order to punish Scio, the capudan pacha abandoned his plan of operations against the Morea, and landed (April 11th) 15,000 of the most barbarous of the Asiatic troops, after the Sciots had rejected the offer of amnesty. The islanders were beaten, and in a few days the paradise of Scio was changed into a scene of fire and blood. It was with great difficulty, and at the risk of their own lives, that the European consuls (among whom the courageous French consul Digeon was distinguished), and the captains of some European vessels, were able to save a few hundred Greeks. Part of the people escaped to their vessels; others continued the struggle of despair in the mountains. The European consuls, by means of a pastoral letter of the archbishop, and by the written assurance of the surviving hostages, that the Sciots might trust the offered amnesty, if they would deliver up their leaders and their arms, finally effected the submission of the peasants. Still, murders, burnings, and pillaging did not cease. According to the Turkish lists, down to the 25th of May, 41,000 Sciots, mostly women and children, were sold into slavery. A similar fate was prepared for Ipsara, Tine, and Samos. But the Ipsariots, having already made preparations to send their families to the Morea, hovered round the Turkish fleet with seventy small vessels, among which were several fire-ships, called *hephæstia*, which were as ingeniously constructed as they were skilfully directed. Forty-three Ipsariots and Hydriots devoted themselves to death, rowed with their *scampavias* (a kind of gun-boats) into the midst of the fleet of the enemy, which still lay in the road of Scio; and in the night of June 18, 1822, captain George attached fire-ships to the ship of the capudan pacha and to another vessel of the line. The former blew up, with 2286 men; the latter was saved. The capudan pacha was mortally wounded, and carried on shore, where he died. The Turks were at first stupified; but their rage soon broke out, and the last traces of cultivation, the mastic villages, so

lucrative to the Porte, were destroyed. In Constantinople, Turks bought Sciots merely for the purpose of putting them to death at pleasure. The merchants of Scio, resident at Constantinople, and the hostages which were carried thither, were executed in secret or in public, without any kind of legal process. Thus the Morea and the Archipelago were taught what fate they were to expect. The Porte, however, began to perceive that it was destroying its own resources by the system of devastation. The pacha of Smyrna, therefore, received strict injunctions from the sultan to maintain order and to protect the Greeks. In Scio, the new governor, Jussuf Bey, gave back the lands to those Greeks who returned. In Cyprus, where the murder of the Christians had been continued until the end of 1822, Salih Bey, a humane officer of the pacha of Egypt, finally protected the district under his command from utter devastation; and, in 1823, the new governor, Seid Mehemet, endeavoured to restore order in the whole island. The insurgents also occupied the Turkish troops in Macedonia. The enormities of the Asiatic troops, who traversed this province, to join Khurshid's army, excited an insurrection among the mountaineers, who had previously remained quiet. Under the capitani Diamantis, Tassos, and others, they occupied the passes of the Olympus, and, March 24, 1822, captured the important place of Cara-Veria, the ancient Berœa. But the pacha of Saloniki, Abbolubut, finally defeated them with his cavalry at Niausta; the peasants dispersed, and about 150 villages experienced the fate of Scio. Five thousand Christian families perished, and the pacha boasted that he had murdered in one day 1500 women and children. Even the Porte disapproved of these measures, and the pacha was condemned to be strangled; but, surrounded by his body-guard, in the fortress of Saloniki, he escaped the execution of the sentence. (The Porte afterwards, however, appointed him seraskier of Rumelia, and in November, 1823, he marched with 15,000 men from Larissa to Zeitun.) Whilst Scio was desolated, and Macedonia bled, the central government at Corinth, under Mavrocordato, president of the executive council, was engaged, in connexion with the provincial governments, in organising the administration of the country, provisionally, by the law of April 30, 1822 (the first year of independence), introducing order into the army, raising a loan, promising the soldiers land (by the law of May 7, 1822, May 19, new style), and, as there existed no taxes except customs, in laying a tax on the productions of the soil; but they met with resistance in almost all their attempts, particularly from the old capitani, who had been entirely independent during the government of the Turks. Each desired to command and to fight on his own account, and for his own profit. Thus the avaricious and ambitious Colocotroni, the fierce Ulysses,* and the haughty Mavromichalis, and even Ypsilanti, yielded with reluctance to the new order of things. The deficiency of human language, which obliges us to use the same word for things which are very different, constantly creates misunderstanding, and we must warn our readers not to connect with the words *government, ministers, law*, &c., applied to Greece at this time, such ideas as they annex to the words when used of European or North American affairs. If a nation, which has been for centuries in a state of oppression and lawlessness, rises, it must undergo many changes before the elements of order are developed. Under the Turks, the Greeks had no connexion with each other; how could they be expected to form at once a peaceful whole? The bravest soldiers among them were the capitani from Maina and Suli, but these had been, mostly, *clephtes* or robbers, totally independent, and wished to continue the war independently, for their own interests, as they had previously done. Of this class is Colocotroni. Submission to any sort of national organization was foreign to their habits. The inhabitants of the Morea were mostly wretched peasants, who had always lived in such a state of bondage, that they were only fit to engage an enemy under shelter, or when their numbers were greatly superior, but could never be brought to fight in open combat on equal terms. They were, moreover, poor, and few among them could be induced to make any sacrifices. At the same time, they thought liberty delivered them from all taxes; and, indeed, what had they to pay? War, putting a stop to production, left the government without resources, and without the means of exercising authority. Add to this, that the Greeks were continually quarreling among themselves. The editor was present at a fight between the capitano Niketas and some Moreots, for the possession of some cattle. Under these circumstances, the words *law* and *government* must be understood in a very restricted sense. The editor's Journal, above referred to, relates particularly to the state of Greece at this period. All that enabled the Greeks to continue the struggle was the wretchedly undisciplined character of their Turkish enemies. Mavrocordato had a difficult part to perform, because he had not obtained his dignity of *proëdros* on the field of battle. Yet, by the influence of Negris, he received the command of the expedition to Western Hellas (Epirus), with full civil and military power. The *proëdros*, with 2000 Peloponnesians and the corps of Philhellenes* (about 300 men, under general Normann, formerly a general in the Wurtemberg service), joined, on June 8, the Albanian bands of the brave Marco Botzaris, for the purpose of covering Missolonghi, the stronghold of Western Hellas, of relieving Suli, and capturing Arta. Here they had to contend with the pacha of Yanina, Omer Vrione, and the pacha of Arta, Ruchid, whilst the Turkish commander-in-chief (seraskier) Khurshid, who had made an unsuccessful attack on Thermopylæ in May, had forced his way (June 17) through Tricala to Larissa. Suli, in Albania, was relieved; but, after the bloody battle of Peta (July 16, 1822), where the capitano Gouras treacherously fled, and the Philhellenists, who made the longest stand against the enemy, lost 150 men, with their artillery and baggage, Botzaris and Normann were obliged to throw themselves into the mountains. Mavrocordato in vain called the people to arms; the other commanders refused to assist him; general Varnakioti went over to the enemy, and the internal dissensions among the Albanians enfeebled the strength of the Greeks. The castle of Suli was surrendered to the Turks on Sept. 20. Part of the Suliots (1800 men, with their wives and children) took refuge under the protection of the British in Cephalonia; the rest fled to the mountains. Mavrocordato, with 300 men, and Marco Botzaris, with twenty-two Suliots, finally threw themselves (November 5) into Missolonghi. "Here," said the former, "let us fall with Greece." Omer Vrione now considered himself master of Ætolia, and advanced, with Ruchid, at the head of 11,000 men, to Missolonghi. Jussuf Pacha sent troops from Patras and Lepanto against Corinth, and Khurshid, who, at Larissa, had received reinforcements from Rumelia and Bulgaria, determined to advance from Thessaly.

* Ulysses even ordered a brave officer, the colonel Haverlao Palasca, and a capitano, Alexis Nuzzo, sent by government to induce the wild capitano to act in concert with a general plan of operations, to be put to death.

* Those Europeans and Americans who had gone to Greece to serve in the insurrection.

rough Livadia (where the Greeks, June 19, 1822, ad reduced the Acropolis by famine, after a siege four months) against the isthmus; and then, after rming a union with Jussuf and Omer Vrione, to ush the insurgents in the Morea. His main body, 5,000 strong, composed principally of cavalry, had ready passed Thermopylæ, which Ulysses had deended so valiantly in May and June, without oppotion. On his march through Livadia, he laid every ing waste, proclaimed an amnesty, and occupied orinth, which a priest of the name of Achilles, who terwards killed himself, had basely surrendered on ly 19; but when Khurshid attempted to penetrate e passes in person, he was three times repelled by lysses, near Larissa, where he died, November 26, st before the arrival of the capidgi bachi, who rought his death warrant. That body of cavalry, owever, which had so rashly pushed forward with- t infantry, and was unable to obtain food or proender, perished in the defiles of the Morea. When advanced against Argos (from which the central overnment had fled), formed a junction with 5000 en of Jussuf's army, and sent reinforcements to apoli di Romania, the danger united all the capiani. Nicholas Niketas, who was on the point of king Napoli di Romania by capitulation, Mavromihalis and Ypsilanti retreated to the heights of Aros, laying waste the open country; Ypsilanti, in e ruins of the castle of Argos, held the enemy in heck; the Greek fleet prevented the relief of Naulia, or Napoli di Romania, by the great Turkish eet, and took an Austrian store-ship, bound to Naoli di Romania; Ulysses occupied the defiles of eranion; Colocotroni hastened from Patras, which e was besieging, to the scene of danger, called the eople to the standard of the cross, assumed the chief ommand, and, in the latter part of June, occupied he defiles between Patras, Argos, and Corinth, by hich he cut off the connexion of the Turks in Thessaly with Khurshid. The skirmishing began n all sides, and continued day and night, from August 1 to August 8. On the latter day, the Turkish commander-in-chief, Dram Ali (or Tshar Hadgi Ali Pacha), whose troops had nothing but horse-flesh to eat, offered to evacuate the Morea; but Colocotroni refused the offer. The Pacha then determined to break through to the isthmus of Corinth; but Niketas fell upon the separate corps of the Turks, on the night of August 9, in the defile of Tretes; so that hardly 2000, without artillery or baggage, reached the isthmus, where Ypsilanti entirely destroyed them.* Another corps, which fled towards Patras, was destroyed by Colocotroni; the remaining corps was routed by the Mainots, August 26, near Napoli. Thus more than 20,000 Turks disappeared, in four weeks, from the Greek soil. Some thousands still held the isthmus and the Acrocorinthus, but were soon obliged to evacuate the isthmus, and were destroyed by Niketas, in the defiles, in an attempt to break through to Patras. 500 Turks remained in the Acrocorinthus until November, 1823. The conquerors and the Moreots now perceived, that they must not seek safety behind the isthmus, but must push the war under Olympus. The Turkish fleet, which had lain at anchor for four weeks in the gulf of Lepanto, and had attacked Missolonghi without success, set sail, September 1, with the plague on board. After an unsuccessful attempt to break through the line of fifty-seven Greek brigs, which blockaded Nauplia, it finally came to anchor at the entrance of the Dardanelles, off Tenedos. November 10, seventeen daring sailors, of the band of the 40 Ipsariots, dressed like Turks, conducted two fireships under full sail, as if they were flying from the Greeks, whilst two Ipsariot vessels pursued them, firing on them with blank cartridges, into the midst of the Turkish fleet, and fastened one of them to the admiral's ship, the other to the ship of the capitana-bey. Both were soon in flames; the former narrowly escaped; the latter blew up with 1800 men; the capudan pacha, Cara Mehmet, however, got on shore, before the explosion took place. Three frigates were wrecked on the coast of Asia Minor; one vessel of thirty-six guns was captured; storms and terror destroyed a part of the Ottoman fleet, and of thirty-five vessels only eighteen returned, much injured, into the Dardanelles. The seventeen Ipsariots arrived safely at Ipsara, where the ephori rewarded their leaders, Constantine Kanaris and George Mniauly, with naval crowns. The Greeks were once more masters of the sea, and renewed the blockade of the Turkish ports, which Great Britain now formally acknowledged. The British government seemed to have changed their policy towards the Greeks, from the time of Canning's entrance into the ministry, and Maitland, lord high commissioner of the Ionian isles, displayed less hostility against them. Even Austria and France, who had previously protected neutral vessels against "the arbitrary and unlawful measure of the blockade," now seemed to acknowledge the right of the blockade by the Greeks. Greek vessels delivered Missolonghi on the sea side, November 20. The Suliots maintained themselves in the defiles of the Chimæra, and the remains of the army of Mavrocordato on the coast of the gulf of Lepanto. The amnesty, proclaimed by Omer Vrione, met with no confidence among the mountaineers; had he not already betrayed two of his former masters? His expedition against Ætolia entirely failed. Wherever his troops appeared, the peasants burned their villages, collected in bands in the mountains, and continued the guerilla warfare.† Near Missolonghi, finally, which, from Nov. 7, 1822, to the assault of January 6, 1823, he had repeatedly attacked, Omer Vrione was repulsed by Mavrocordato and Marco Botsaris, with great loss; he was obliged to raise the siege, lost his ordnance, and retreated to Vonitsa. The most important consequence of this unsuccessful campaign of the Turks, was the fall of Napoli di Romania. (q. v.) On the day of St Andrew, the patron of the Morea (November 30, old style, December 12, new style), a band of volunteers took the fort Palamidi by assault. This brought the city into the power of the Greeks, who observed the terms of the capitulation, and transported the Turkish garrison to Scala Nuova. The seat of government was to have been established in this bulwark of Peloponnesian independence, when the old discord among the capitani broke out anew, and Colocotroni became suspected of the design of becoming prince of the Morea under Turkish protection.

Meanwhile, Constantinople was disturbed by the riots of the janisaries. The unsuccessful campaign in the Morea, the disasters in Asia, the scarcity in the capital (caused by the interruption of importations by the Greeks), the severe sumptuary orders of the sultan, and the command to deliver up the gold and silver to the mint, the debasing of the coin, and

* Hence Niketas received the surname of *Turkophagos*, the Turk-eater.

† The war, as we have already said, was not carried on by regular battles, but consisted of skirmishes, surprises &c., as every insurrection of an undisciplined people must; and, generally speaking, it is the way in which men can most effectually defend their own soil against well appointed invaders. The Greeks were well fitted for this sort of war, by their uncommon activity. Their swiftness in running is such, that many of them can overtake a well mounted horseman in a long race.

the obstruction of commerce, caused general dissatisfaction among the Mussulmans. Halet Effendi, the faithful friend of the sultan from his youth, who had become obnoxious on account of his plans for quelling the mutinous spirit of the janisaries (who refused to march to the Morea) by means of Asiatic troops and European discipline, and on account of his influence, which excluded the grandees of the empire from the confidence of the sultan, fell a victim to the hate of the soldiery. Sultan Mahmud II. (q. v.) found himself constrained to discharge the adherents of Halet—the grand-vizier Salih Pacha, the mufti, and other high officers. He hoped to save his friend by an honourable banishment to Asia (Nov. 10); but he was obliged to send his death warrant after him, and Halet's head, with those of his adherents, was exposed on the gates of the seraglio (Dec. 4, 1822). The hatti-sheriff, which appointed Abdullah Pacha, a friend of the janisaries, grand-vizier, concluded with the words, "Look well to your ways, for, God knows, the danger is great."

Adoption of a Constitution in Greece, and third unsuccessful Campaign of the Turks against the Greeks, in 1823. The central government of Greece, in which Mavrocordato and Negris were distinguished, aimed at two objects. Fully sensible of the truth of the words of a Greek author, "as all the states of Greece wished to rule, all have lost the sovereignty," they endeavoured to establish union at home; on which, at the same time, they founded their hope that Europe would, at length, look with approbation and confidence on the restoration of an independent Greek state. In this view, the Greek government at Corinth issued a proclamation to the Christian powers (April 15, 1822); but the negotiations on the Greek affairs, at Vienna, and afterwards at Verona, took a turn unfavourable to the Greeks, or rather remained unfavourable, when the Porte, by its declarations of February 28 and April 18, 1822, seemed to be disposed to be more lenient. The "holy alliance" then thought that the continuance of the Porte as a legitimate power, and the acknowledgment of Greek independence, were incompatible; yet the powers thought themselves obliged to interpose with the sultan in favour of the civil and religious security of the Greeks. Count Metaxa was sent as envoy of the Greek government to the congress of Verona (see *Congress*); but he was only permitted to go to Roveredo. Jan. 2, 1823, he wrote from Ancona to pope Pius VII., describing the miserable condition of Greece, imploring his intercession with the monarchs, and declaring at the same time, that the Greeks were willing to submit their rights to the examination of the congress, and to be ruled by a Christian sovereign, under wise and firm laws, but would never again consent to any sort of connexion with the Turks. The Government of Argos declared the same, in a memorial of Aug. 29, 1822, directed to the congress. The answer to these entreaties is contained in the following passage of the circular of Verona, (Dec. 14, 1822): *Les monarques, décidés à repousser le principe de la révolte, en quelque lieu et sous quelque forme qu'il se montrât, se hâtèrent de le frapper d'une égale et unanime réprobation. Mais écoutant en même tems la voix de leur conscience et d'un devoir sacré, ils plaidèrent la cause de l'humanité, en faveur des victimes d'une entreprise aussi irréfléchie que coupable* (The monarchs, decided to suppress the principle of revolt, in whatever place or under whatever form it might appear, hastened to condemn it with equal and unanimous disapprobation. But, open at the same time to the voice of their conscience and of a sacred duty, they have pleaded the cause of humanity in favour of the victims of an undertaking as inconsiderate as guilty). The dissensions in Greece, it cannot be denied, were a strong objection to the acknowledgment of Greek independence. Colocotroni refused the central government admission into Napoli di Romania, and deliberated with other ambitious capitani in Tripolitza, on a division of the Morea into hereditary principalities.* The central government, however, succeeded in preventing the dangers of a civil war, and called a second national assembly at Astro, in January, 1823. In regard to the election of deputies, the laws of Nov. 21 and Dec. 3, 1822, had already established two divisions, that of *gerontes* or elders, for from 10 to 50 families, and that of senators according to eparchies. Mavrocordato principally contributed to the restoration of concord, at the time when the declaration of the congress of Verona was communicated by the British embassy at Constantinople to this effect: "The Greeks must submit to their lawful sovereign the sultan." At the same time, information was received of a new Turkish expedition, destined to attack the Morea by land and sea. The number of deputies was now increasing at Astro; even Ulysses and other capitani repaired thither, with their bands, from Tripolitza; so that the national assembly at Astro consisted of 100 deputies, at the opening of its sessions (March 1) Mavromichalis was elected president; Theodore Negris, secretary. Even Colocotroni submitted to the assembly. The members of the legislative and executive councils were then elected. Conduriotti of Hydra was chosen president of the former; Petro Mavromichalis, bey of Maina, of the latter. Both bodies determined to raise from 40,000,000 to 50,000,000 of piastres for the purpose of levying a force of 50,000 men, and equipping 100 large men of war. The principles of the constituent resolutions of Epidaurus were adopted for all Greece, with some unimportant modifications, and eparchs substituted for provincial governments. The French military code was adopted, with some changes, and the preparation of a new criminal code decreed. The assembly then proclaimed the new constitution at Astro (April 23, 1823), and dissolved, after the national government established by it had gone into operation at Tripolitza (April 20). Thus order was, in some degree, restored, but not concord among the capitani. This produced several changes of the ministers and the presidents of the two councils. Mavrocordato was made president, and Colocotroni vice-president, and Demetrius Ypsilanti was removed as unqualified for public affairs. The secretary Negris, also, received his discharge. The Greeks continued united only in refusing an amnesty, and such an independence as that of Moldavia and Wallachia, offered to them by British agents. The British policy now permitted at least an indirect support of the cause of Greece, from Malta and the Ionian Islands. The French cabinet no longer attempted to prevent Frenchmen from participating in the cause.

* It has been one of the causes of the misfortunes of the Greeks, that the capitani, with little in view but their own interest, have been, generally speaking, the only leaders who coincided in spirit and feelings with the great body of the people. The other leading men, educated abroad, and imbued with foreign opinions, have, in many cases, shown great ignorance of the state and character of the people with whom they acted. The abortive trials to establish a form of government for Greece, at different times, have given proof of this. The ill success of these trials, however, has been, in no small degree, owing to a want of moral political elements in the people. The same cause has given rise to the difficulties which have so often obstructed the establishment of wise and settled forms of government in France and South America. On the other hand, the orderly character of the people in the North American colonies, and their long exercise, in fact, of the rights of freemen, gave success to their experiment when they instituted an independent government.

the Greeks. But no power was willing to declare elf openly in their favour, before Russia had manisted her sentiments. The emperor Alexander had oken off direct diplomatic relations with the Porte. e insisted upon the entire evacuation of Moldavia nd Walachia.

The events of the year 1823 were not less bloody nd confused than those of the preceding years. Whilst, in Thessaly and Epirus, there was a suspenon of arms; and the Greek flag (eight blue and hite horisontal stripes) commanded the sea, the opulace in Constantinople manifested their rage by tting fire to different parts of the city because they ere prevented from committing massacres. March , 1823, an attempt was made to pillage and burn ne Greek suburbs; but the wind drove the flames gainst the Turkish quarters. Four times the sea f fire rolled against the Greek quarters, and four imes a fresh north wind rolled it back against the urkish houses. Pera was saved; but 6000 Turkish ouses, part of the cannon foundery (Tophana), and art of the naval arsenal, were reduced to ashes. The Mussulmans finally cried out, "God is with the Giaours." The grand-visier Abdullah was dismissed n consequence of this conflagration, and Ali Bey, pacha hostile to the janissaries, succeeded him. These troops, therefore, meditated vengeance; and, July 13, a new fire broke out, which consumed 1500 rivate houses, and three frigates. Order was, however, restored by severe measures; more favourable news arrived from Asia; and the sultan resolved on a general war of extermination against the Greeks, on account of which he called all Mussulmans, from fifteen to sixty years, to arms. On the other hand, Greece endeavoured to organise an army and a financial system. The dissolved battalion of Philhellenists became the nucleus of the first Greek regiment. Mavrocordato was placed at the head of the land forces. The minister of the marine (Orlandi, a Hydriot) organised the navy, which consisted, in 1823, of 403 sail, with cannon. The largest (the Hercules) carried twenty-six guns. The rich Hydriot, Miaulis, was admiral; Manuel Tumbasis of Hydra, George Demitracci of Spezzia, and Nicolos Apostolos of Ipsara, vice-admirals. A Greek order of merit (a light blue cross) was established. The financial department met with great difficulties everywhere, particularly on the islands. The disputes of the government with the Hydriot navarchs, on the subject of arrears of pay and the booty of Napoli, which the capitani were unwilling to divide with the islanders, had a bad effect on the naval operations. The Greek fleet, however, gained a victory (March 22, 1823) over an Egyptian flotilla destined for Candia; but it was unable to prevent the landing of Turkish troops; and the daring expeditions of the Ipseriots and Samiots on the coast of Asia Minor were without important results. When the fleet of the capudan pacha finally appeared, in June, the Greek ships retired, and supplied Caristo and Negropont in Eubœa, Patras, Coron, and Modon in the Morea, and Lepanto, with fresh troops and provisions. The land forces of the Greeks were now systematically distributed. Mavrocordato was at the head of the whole. He had prevented the trial of Colocotroni, who was accused of treachery, and won over that capitano by promoting his election to the vice-presidency and to the post of second in command. Of the forces, the command in chief in Western Hellas was given to the Suliot Marco Botsaris; in Eastern Hellas Ulysses commanded. The Suliots were faithful and trusty allies. The Albanian tribes, who had caused the defeat of Omer Vrione by their desertion of him, were less to be relied on. These tribes sold themselves to the highest bidder; some bands accepted the offers of the pacha of Scutari, who marched against the Greeks in 1823. The insurrection of the inhabitants of Eastern Thessaly had obliged Mehemed Pacha (the murderer of Ali), the second successor of the seraskier Khurshid, who had collected the ruins of Khurshid's army after the defeat at Larissa, to retreat from the southern part of Thessaly. In his rear, Saloniki and Seres were threatened by the Greek officer Diamantis, who had taken possession of the peninsula of Cassandra (Feb. 23, 1823). But the troops from Rumelia soon drove him back. The army under the seraskier of Rumelia (25,000 strong), after five months' preparation, finally opened the campaign, in June, from Larissa. It advanced with caution, in two masses, towards Livadia. But the Greeks, under Mavromichalis and Mavrocordato, instead of waiting for them behind the isthmus, took a position near Megara, and Colocotroni received a command over the forces of Ulysses and Niketas, with whose bands the Peloponnesian army united near Platæa. From this place they advanced against the enemy, towards the end of June. After some fighting in detail, Ulysses defeated one of the main bodies of the Turks, under Mehemet Pacha, at Thermopylæ. He then joined the army under Colocotroni, who attacked (July 7) the Turkish camp near the monastery of St Luke (between the cities of Thebes and Livadia), which was captured by Ulysses and Niketas, after a bloody fight. The Turks retreated with great loss. Ulysses overtook them (July 17), and routed them in the plains of Cheronea. But the seraskier collected new forces, and advanced again, whilst, at the same time, Jussuf and Omer Vrione, supported by the fleet of the capudan pacha, off Patras, were destined to advance on Missolonghi, and the pacha of Scutari was to enter the Morea through Western Greece, by Vrachori, Vonitza, and Salona. But the attack of the seraskier on Volos and the peninsula of Tricori failed; Jussuf's march was delayed by the desertion of 8000 Albanians, and the vanguard of the pacha of Scutari (who, with 20,000 men, partly Albanians, had occupied the heights of Agrapha, and threatened Ætolia) was surprised at midnight (Aug. 20, 1823), in the camp of Carpinissi, by Marco Botsaris. Whilst the mountaineers, from Thessaly and Epirus, attacked the camp on four sides, on a signal given by Botsaris, the brave commander himself penetrated, with 500 Suliots, to the tent of the pacha; but, at the moment of making the pacha of Delvino prisoner, he received a mortal wound, and his brother Constantine completed the victory. The Turks lost all their artillery and baggage, and the dying Marco exclaimed, at the moment of victory, "Could a Suliot leader die a nobler death?" * The Albanians of the pacha dispersed; he himself returned to Scutari, in consequence of the desertion of the Montenegrins to the Greeks. At the same time, the Turkish fleet, again having the plague on board, left (Aug. 30) the gulf of Patras, and returned to the Archipelago, avoided the Greek islands, delivered Saloniki from its blockade, and returned, in October, to the Dardanelles, after a few indecisive engagements with the Greeks. But bloody quarrels soon broke out between the Hydriots and Spezziots, relative to the division of the booty taken from some vessels. While Livadia and the Morea were threatened, the inhabitants of Athens had fled to the island of Salamis; but Gouras still maintained possession of the Acropolis. The members of government, with the deliberative council, were

* Marco Botsaris, a Suliot, served in the French army, returned in 1820 to Epirus, where Ali Pacha restored Suli to him, that he might assist him against the Porte.

had put themselves in a hostile position with regard to the European powers. The secretary of state, Rhodios, in a letter to Canning, declined the proposal of a treaty with the Porte. On the other hand, Britain, through their lord high commissioner of the Ionian Islands, Sir Frederic Adam, forced the Greek government to revoke (September 15) the proclamation issued June 7, in which they treated the European transports employed by the enemy, not as neutral, but hostile vessels. The Greek government issued a manifesto, in which they complained greatly of the shameful avarice of the Christian merchants, who violated so openly the law of neutrality, in favour of the Turks. The British government then acknowledged the right of blockade, properly exercised by the Greek government, and the Austrian internuncio issued a command to the consuls of his government to prevent all letting out of ships contrary to the neutrality. Some Christian captains, however, particularly the French, did subsequently let their ships to the Egyptians, and carried Christian captives from Greece as slaves to Africa—a proceeding which was denounced in the French chamber of peers (1826), by Chateaubriand, and then prohibited by law. Meanwhile, the Egyptian and the Turkish fleet united in the gulf of Bodroun (September 4), and some battles were now fought with the Greek fleet, The battle at Naxos (September 10) lasted the whole day. It was, perhaps, the first during the war that deserved the name of a naval engagement. The intrepid Kanaris blew up, with his fire-ships, an Egyptian frigate of forty-four guns, and a brig. The Greeks lost ten small ships. At length, the Ottoman fleet broke off the engagement, and retired to Mitylene, with the loss of several transport-ships. Khosru then turned back to Constantinople, with fifteen sail; and Ibrahim Pacha, with the rest of the fleet, to the gulf of Bodroun. He supplied the islands anew with troops and provisions, particularly Candia, which his father already regarded as a part of his viceroyalty. Miaulis soon after attacked him off Candia. Ibrahim lost a frigate, ten small vessels, and fifteen transport-ships. Weakened by the plague, which had appeared on board the ships, he drew back to the harbour of Rhodes, where the well known admiral Ishmael Gibralter died. His plan of attacking the Morea was frustrated for this year. After such exertions on the part of the Greek fleet, the insolent ambition of the military faction once more disturbed the harmony of the peninsula. When the elections for the third term of the government began, in October, the executive council at Napoli di Romania consisted of sixty-three members. Mavrocordato resigned his place as president of the senate, and Panuzzo Notaras became his successor. Colocotroni and his followers were disappointed in the choice of the executive council. The former members were re-elected. But unfortunate events checked the activity of the government. A contagious fever broke out in Napoli, of which the vice-president, Botassis, and Manuel Tumbasis, died. The president, Conduriotti, went, therefore to Hydra. At the same time, a civil war arose (November, 1824). Colocotroni had openly declared against the re-election of the executive council, and had drawn the military commanders to his side. The generals Kanellas, Papaganopulos, Andreas Londos, and Notarapulos immediately left the siege of Patras, which had been intrusted to them. Their troops dispersed. They, with their followers, placed themselves under the insurgent standard at Tripolizza, where Panos Colocotroni took the command of them. Conduriotti then turned back to Napoli di Romania (December 9), and summoned Gouras, Tassos and other commanders, from Attica to Corinth. Coletti received the chief command; Christos and Mauregeni appeared before Tripolizza. The rebels were beaten in several battles. Panos Colocotroni fell, and his followers were dispersed. The well known Amazon Bobolina, a follower of Colocotroni fell by the dagger of a Greek, as it is said, the lover of her daughter, whose hand she had refused him. Ulysses who had formed a secret union with the Turks at Negropont, was defeated by Gouras, taken prisoner, and confined in a tower, built by himself, for the defence of Athens. In attempting to escape from it, he fell to the bottom, and was killed. Colocotroni, the father, saw himself deserted by all, and surrendered in December 1824. The other leaders of the rebellion fled to the Ionian Islands. Some surrendered, others were seized and (together with the elder Colocotroni) carried to a convent, where they were judged by a commission. The Mainot bey Petro Mavromichalis was acquitted. The government now laboured to secure the obedience of the armies by law, and made preparations to invest Patras, Modon and Coron anew. Omer Vrione entered into a negotiation with the Greeks, but it was broken off (1825), and he received the pachalic of Salonica. The disastrous issue of the campaign of 1824, by sea and land, excited in Constantinople again the hatred and anger of the factious. Hussein Aga, commander of the troops of the Bosphorus, the agas of the janisaries, the mufti, and Janib effendi (a man seventy-six years of age, the most obstinate follower of the old Ottoman policy), united for the ruin of the grand-vizier. This faction would permit no kind of intervention of the Christian powers in the internal affairs of the Porte, and demanded loudly that before the Porte evacuated the two principalities Russia should restore the fortresses in Asia. The grand-seignior saw himself obliged to dismiss the grand-vizier, Ghalib Pacha, who was universally esteemed, although not very energetic. His successor Mehemet Selim, pacha of Silistria, was a creature of Janib Effendi. Hitherto, the English envoy had urged the evacuation of the principalities; but, being put off continually with promises, he at last left Constantinople (Oct. 18, 1824), having shortly before effected the conclusion of a treaty between the Porte and the king of Sardinia, and obtained some commercial privileges. He went the following year as British minister to Petersburg. The porte felt constantly more sensibly the consequences of the war. It lost the revenue which had come from the provinces in rebellion, The tribute which the Peloponnese alone used to pay, amounted yearly to 35,000,000 Turkish piastres. The grand-vizier determined to lay an extraordinary tax of 13,000,000 piastres upon Moldavia and Walachia, as a compensation for the occupation of the same since 1821. Most of the boyards withdrew themselves by flight. In vain the hospodars represented the unhappy condition of the provinces, which could hardly pay the customary tribute. The Turkish commanders took away all the money and other valuables which they found in the public treasuries or among the possessions of the rich. Some Turkish troops now withdrew from the provinces, and Minsiacky, who appeared as the Russian agent, announced the approach of a Russian ambassador, the marquis de Ribeaupierre, with full powers; but new troops soon marched again into the principalities; for more than 100,000 Russian soldiers remained on the frontiers, ready for instant service. The campaign of 1825 was opened in the Morea by the landing of Ibrahim Pacha. Reschid Pacha besieged Missolonghi at the same time, and the capudan pacha aided both by his fleet. While these dangers threatened Greece, her ruin was accelerated by the capitani. Ibrahim Pacha, before

mentioned, was permitted to land (Feb. 22, 1825), with 4500 men, between Coron and Modon, and was strengthened in the beginning of March, so that his force amounted to 12,000 men. His army, owing to their European tactics, French leaders, the use of bayonets, and a disciplined cavalry, was far more to be dreaded than the undisciplined host of Turks. Thus Ibrahim began the siege of Navarino, the key of the interior of the Peloponnesus. In vain Miaulis attacked with his fleet that of the enemy, on the night of the 12th of May, when he burned an Egyptian frigate, two corvettes, three brigs, and many transport-ships. In vain Mavrocordato did everything, by personal exposure, to animate the courage of the garrison of Navarino, which was reduced to extremity. Condriotti found no obedience as he approached for the relief of the place. The inactivity of the capitani, who would give no aid to the Hydriots and the government, was the cause of the capitulation of Navarino; after which Ibrahim pressed on, without resistance, to Tripolitsa. In this danger, the government saw themselves compelled to pardon the old Colocotroni, and, after receiving a solemn promise of fidelity from him, to give him the command of the Peloponnesus. This happened in the last of May, 1825. In the mean time, Reschid Pacha forced his way into Acarnania and Ætolia, after he had beaten the Greeks at Salona. April 22, the third siege of Missolonghi and Anatolica began. The capudan pacha did not arrive sufficiently soon to support the attack on the side of the sea. He lost several ships in May, near capo d'Oro, in an engagement with the Greek admiral Sactouri, and reached Modon at the end of this month. Ibrahim had already taken Calamata, and occupied Tripolitsa, which the Greeks, in their retreat, set on fire. He pressed on, destroying every thing, and reached even Argos. Napoli di Romania itself was threatened by him. But, after the battle of the mills, at the distance of two leagues from the capital, he was obliged to draw back to Tripolitsa, in the midst of repeated attacks from Colocotroni's army. This continued to be the centre of his enterprises. Not one Greek village obeyed his command to submit and receive his protection, so that he laid waste every thing, put to death the men, and sent the women and children as slaves to Egypt. In the defence of Missolonghi, the spirit of the Greeks appeared more clearly than ever. The garrison refused every exhortation to surrender. Noto Botzaris stood first among the brave. The Turks, with 35,000 land forces and 4000 sea forces, were wholly defeated (Aug. 2, 1825), after a contest which lasted several days. The Turks lost 9000 men. During the struggle, Miaulis arrived, burned several Turkish ships, and forced the fleet to retire. The siege was raised, Oct. 12, 1825, four months and a half after the opening of the trenches. Ibrahim Pacha spread more and more widely the terror of his arms. The government found itself in great danger. It had lost, almost entirely, the confidence of the auxiliary societies, even in Britain, because the money from the British loan had not been properly laid out. The British party then exercised much influence over the Greek government, through their secretary of state, Mavrocordato; and, after an interview with the British commodore (Hamilton), they determined to throw themselves on the protection of Britain. But before the Greek deputy arrived in London, the British government (Sept. 30, 1825) issued a decided declaration of neutrality. The whole state of European politics forbade any single power from promising direct intervention. Yet the British government permitted their consul at Alexandria to forbid British ships to carry ammunition from Egypt to Greece for the assistance of the pachas. Britain even seemed to recognise the right of search on the part of the Greeks. The British declaration of neutrality appeased the divan, and the new British ambassador (Stratford Canning) set out, at last, upon a journey to Constantinople; but he stopped a long time on the way, and had an interview (January, 1826) with Mavrocordato, and other Greek statesmen, at Hydra, in order to inform himself of the general state of affairs. He then went to Smyrna, and sailed from that place through the Dardanelles (January 15), and arrived at Constantinople in the last of February. About this time (March, 1826), the duke of Wellington, as envoy extraordinary at St Petersburg, and lord Strangford, then resident minister there (who had formerly been minister to Constantinople), discussed the affairs of Greece with the Russian cabinet; for, at the end of the year 1825, the idea of restoring independence to the Greek states seemed to be gaining strength in the principal European cabinets. The unsuccessful issue of the Turkish-Egyptian campaign, begun under such favourable auspices, contributed much to this. The capudan pacha had received the command of the Egyptian fleet at the end of August, in Alexandria, where the brave Kanaris (August 10) had, with three fire-ships, in vain forced his way into the harbour, with the intention of burning the Egyptian fleet; the pacha had also landed fresh troops at Navarino (August 5); he had afterwards directed his efforts against Missolonghi, in order to invest this place on the sea side. Reschid Pacha thus began, in connexion with Ibrahim, a winter campaign. Yet this did not effect any thing decisive. The affairs of Greece appeared to be hastening to ruin. The Greek fleet (73 men-of-war and 23 fire-ships) arrived too late before Navarino. The government had hardly 6000 men under arms. The capitani squandered the money with which they were to provide troops. General Roche, manager of the French committee for the assistance of the Greeks, worked openly and secretly against the measures of the British party, which had the upper hand in the government. The members of the senate and of the executive council had no confidence in each other. The secretary of state, Mavrocordato, who laboured, with little aid but that of his own foresight and prudence, to maintain order, was, for this reason, held in ill will by all parties, and had little influence. The islanders presented the last bulwark for the defence of the Morea, but were obliged also to provide for their own security. Notwithstanding this, their fleet succeeded in entering Missolonghi (November 24), now besieged for the fourth time, and in providing it with ammunition and provisions, after the garrison had again repulsed an attack made by sea and land. At the same time, Gouras had advanced from Livadia to Salona, and had expelled the Turks from this important point (November 7), after which he attacked Reschid Pacha's besieging army in the rear. A body of troops, also, sent by Ibrahim Pacha against Corinth, was wholly destroyed by Niketas. Hereupon the provisional government, in December, 1825, called for a voluntary contribution for the equipment of a new naval force at Hydra, in order to save Missolonghi. Strengthened by the accession of these vessels, Miaulis appeared, in January, 1826, in the waters of Missolonghi, and successfully encountered the capudan pacha on the 8th of this month. In the mean time, Reschid and Ibrahim Pacha were making arrangements for a new siege. Ibrahim, as governor of the Morea, had taken possession of Patras with this view, after the brave Jussuf Pacha had been appointed governor of Aidin (Magnesia) in Natolia. The capudan pacha appeared anew before Missolonghi. The attempts of the Grecian fleet to supply it again with provisions and ammunition failed; the

capudan pacha (January 27) summoned the authorities of the town to surrender, if they did not wish the place to be taken by storm. They refused the offer. Soon after, there was an engagement between the fleets, in the gulf of Patras, on the 27th and 28th of January, when the Greek fire-ships, under Kanaris, destroyed a frigate and many small vessels. The capudan pacha soon gave up his command, after a disagreement with Ibrahim Pacha (who had desired his recall by the divan), and went by land from Yanina to Constantinople. In consequence of that battle, the Greeks succeeded in furnishing Missolonghi with provisions and ammunition, sufficient for a few weeks. A later attempt (February 12) was frustrated by the Turkish-Egyptian fleet. Commissioners were sent, at the end of the year 1825, from the divan to Greece. Hussni Bey and Nedschib Effendi (the agent of the viceroy of Egypt) entered the camp at Missolonghi, to await the fall of this place, and to take their measures according to circumstances. Soon after, Reschid Pacha left Acarnania, and went to Livadia, in order to occupy Gouras and colonel Fabvier, who had trained a body of 1000 Greeks in the European discipline. Ibrahim then conducted the siege alone. He had 25,000 men, among them about 9000 regular troops, forty-eight cannon, bought in France, with which Pierre Boyer (a former Bonapartist, and a general well known by his cruelties committed in Egypt, St Domingo, and Spain) bombarded Missolonghi, from February 24. After the bombardment had continued several days, Ibrahim repeatedly offered the commander of the fortress large sums if he would surrender the place. He was willing even to permit the garrison to take the cannon and all the movable property with them. His proposals were rejected, and the garrison prepared themselves for death or victory. Ibrahim assaulted the works of Missolonghi from February 28 to March 2. On this day he attacked the place by sea and land, but was wholly repulsed, with the loss of 4000 men; so that Missolonghi was, for the fifth time, freed by Greek valour, when it had but a few days' provisions. Ibrahim now directed his attacks against the outworks of Missolonghi on the sea side. He forced his way, with gun-boats and floating-batteries, into the lagoons. March 9, 1826, he stormed the little island of Wassiladi, important as a fishing place, where 110 men met the death of heroes. A bomb, which fell into the powder-room of the fort, and kindled the ammunition, decided the fate of this place. Then Ibrahim took, by capitulation (March 13, 1826), the fortified island of Anatolico, near Missolonghi, after he had stormed a fortified monastery, called Kundro, which protected the island, where a garrison of 400 men were cut to pieces. After these misfortunes, Missolonghi, the bulwark of the Peloponnesus, fell gloriously, April 22, 1826. The foundation of an Egyptian-African military state now seemed to be laid in Europe. Ibrahim had removed the capudan pacha, Jussuf Pacha and Reschid Pacha. He was in possession of Modon, Coron, Navarino, and Patras. If he should succeed in gaining Napoli di Romania, he would be master of the islands of the Archipelago. The Porte would then be wholly unable to keep its mighty satrap in subjection; and the viceroy of Egypt owed all this to French artillery officers. This danger roused the attention of the governments and people of Europe. The fate of Missolonghi, of whose garrison 1800 men, under Noto Botsaris and Kitsos Isavellas, cut their way to Salona and Athens, while the rest buried themselves voluntarily under the ruins of the place, excited every where the liveliest interest. In France, this interest was loudly and actively expressed. The Philanthropic Society to aid the Cause of the Greeks, comprised among its members Chateaubriand, Choiseul, Dalberg, Matth. Dumas, Fitz-James, Lafitte, Lainé, Alex. de Lameth, Larochefoucault-Liancourt, Cas. Perrier, Sebastiani, Ternaux, Villemain, and many others. They had contributed, in February, 60,000 francs, to furnish supplies to Missolonghi. They obtained at Amsterdam, for the same object, 30,000 francs. The German Eynard contributed 12,000. The duke of Orleans subscribed, several times, considerable sums. Forty ladies of high rank made contributions individually, and it was soon the custom, in all the drawing-rooms in Paris, for the lady of the house to make a collection for the Greeks. Then followed Germany. King Louis of Bavaria signed the Greek subscription, and permitted his soldiers, with colonel Heidegger at their head, to fight for the cause of Greece. Poetry, too, lent her aid. New societies for assisting the Greeks were formed; for example, in Saxony. All co-operated with the noble Eynard. The Greek orphans were educated in Germany, Switzerland, and France. Thus, at last, when the voice of lamentation was loudest in the land, deliverance was slowly approaching the Greeks. Wellington had, by Canning's order, subscribed at Petersburg (April 4, 1826) the protocol which provided for the interference of the three great powers in favour of the Greeks. The emperor of Russia (q. v.) wished first to arrange his own difficulties with the Porte. This was done by the treaty of Ackerman (Oct. 6, 1826), and Britain concluded with him and France, at London (July 6, 1827), the treaty for the pacification of Greece. Canning wished to decide the question between Greece and Turkey without involving Russia in a quarrel with the Porte, and thereby endangering the peace of Europe. His death frustrated, in part, his noble design. In the mean time, the Egyptian army overran almost all parts of the Morea, and changed it to a desert, without obtaining submission from a single village. Families from all parts of Greece pressed forward together under the walls of Napoli di Romania, and suffered all the horrors of poverty and hunger, rather than enter into a treaty with their Mussulman oppressors. Despair drove many of these unhappy people to piracy; but most of the corsairs, in the Greek seas, were composed of criminals and persons banished from the Ionian Islands, Dalmatia, and Italy, who did not even spare the Greek flag. New bands of warriors came forth from the mountains, and Colocotroni several times attacked Tripolissa, which was defended by 3000 Egyptians, under Soliman Bey (La Séve, the French renegade). The influence of the climate and disease had weakened the Egyptian army, yet Tripolissa could not be taken. In the mean time, an assembly of the people, convoked at Megara, in January, 1826, proposed several measures for the improvement of the internal administration, particularly in regard to the administration of justice and the public revenue. At the same time, an expedition was fitted out for Negropont, and support was rendered to the insurrection of the Greeks, which had again broken out in Candia (1825), where Carabusa was taken by them. Want of money and provisions, and the dissensions between the commanders; the mistrust of the palikaris, who had been deceived by their officers; and the ingratitude of the Greeks towards the Philhellenes, or foreign officers in their service, were the causes that nothing important was accomplished. Owing to these circumstances, Athens, after the army which should have relieved it had fled in a dastardly manner, capitulated to Reschid Pacha (June 7, 1827). In vain did lord Cochrane (who had long been dreaded in Britain by the defective construction of the steam vessels, for which the Greeks had paid no dear)

at last arrive in Greece, and take the chief command of the sea forces, while general Church stood at the head of the land forces. The Turks remained in possession of the whole of Eastern and Western Hellas. The distress was increased by a violent struggle of parties in Napoli di Romania itself. Here Grivas, being in possession of the fortress called Palamedes, began to cannonade the city, in order to compel the payment of arrears. The national government fled to the island of Ægina. They now cast their eyes to Russia. They chose count Capo d'Istria (q. v.) as their president. This statesman received his discharge from the Russian service July 13, 1827, but could not enter upon his high office until Jan. 22, 1828. Meanwhile the ambassadors of the three powers had, on the 16th of August, presented to the Porte the treaty concluded at London, for the pacification of Greece, and waited for an answer till the 31st. "Greece" they said, "shall govern itself, but pay tribute to the Porte." Europe had now more reason than ever to demand from the Porte the independence of Greece, by which piracy in the Grecian and Turkish seas might be prevented; an African slave-holding and piratical state should not be allowed to rule the beautiful Archipelago of Europe; and order might take the place of bloody anarchy, which the Porte had neither sagacity nor strength to suppress. The Greek government immediately proclaimed (Aug. 25) an armistice in conformity to the treaty of London. But the reis effendi rejected the intervention of the three powers (Aug. 31). The Greeks then commenced hostilities anew, and the Turkish-Egyptian fleet (Sept. 9) entered the bay of Navarino. A British squadron appeared in the bay on the 13th, under admiral Codrington. To this a French squadron, under admiral Rigny, and a Russian, under count Heyden, united themselves on the 22d. They demanded from Ibrahim Pacha a cessation of hostilities. He promised this, and went out with part of his fleet, but was forced to return into the bay. As he now continued the devastations in the Morea, and gave no answer to the complaints of the admirals, the three squadrons entered the bay, where the Turkish-Egyptian fleet was drawn up in order of battle. The first shots were fired from the Turkish side, and killed two Englishmen. This was the sign for a deadly contest (Oct. 20, 1827), in which Codrington nearly destroyed the Turkish-Egyptian armada of 110 ships. One part was burned, another driven on shore, and the rest disabled. None struck their flag. The news of the victory was received with exultation in Europe. An involuntary suspension of hostilities now ensued, during which the depredations of pirates became more serious. The admirals of the three united squadrons, therefore, sent a warm remonstrance to the legislative council of the Greeks, and, after a number of capital punishments, the safety of the seas was restored, particularly after the British had destroyed the head-quarters of the corsairs (Karabusa, in Candia, Feb. 28, 1828). The Greeks now resumed the offensive against the Turks; but their attempt upon Scio (where they vainly besieged the citadel from November, 1827, till March 13, 1828) was productive of nothing but injury to the inhabitants. Enraged at the battle of Navarino, the Porte seized all the ships of the Franks in Constantinople, detained them from Nov. 2 to Nov. 19, and, on the 8th, stopped all communication with the ministers of the allied powers, till indemnification should be made for the destruction of the fleet. At the same time it prepared for war. Since the abolition of the janisaries (q. v.), in June, 1826, the sultan had exerted himself, with great zeal, to establish a new army, trained in the European discipline. He conducted their exercises in person, and used all the means in his power to inflame the passions of the Moslems. For this reason, the Russian ambassador, Ribeaupierre, left Constantinople on the 4th of Dec., 1827; the French, Guilleminot, and the British, Stratford Canning, on the 8th. Upon this the Porte adopted conciliatory measures, and sent a note, on the 15th, to count Ribeaupierre, who was detained in the Bosphorus by contrary winds; but the hatti-sheriff addressed to the pachas (Dec. 20), demanding war, and heaping many reproaches on Russia, forbade the idea that the intentions of the Porte were friendly. From all parts of the kingdom, the Ayans were now called to Constantinople (a measure quite unusual), and discussed with the Porte the preparations for war. All the Moslems, from the age of nineteen to fifty, were called to arm. On the 30th, Mahmoud, on hearing that Persian Armenia had fallen into the power of Russia, misled by the artful representations of one part of this intolerant and disunited people, caused all the Catholic Armenians to be driven from Galata and Pera, so that within fourteen days (Jan., 1828) 16,000 persons were obliged to emigrate to Asia in the most deplorable condition. In the mean time, the president of the Greeks, count Capo d'Istria, appointed the able Tricoupi his secretary of state, and established a high national council, called *Panhellenion*, at Napoli di Romania; Feb. 4, 1828, took measures for instituting a national bank; and Feb. 14, put the military department on a new footing. The improvements, however, could go on but slowly. Without the assistance of France and Russia, each of which lent the young state 6,000,000 francs (as is represented in the Courier of Smyrna, or, as others state, paid a monthly subsidy of 500,000 francs), nothing could have been effected. The attempts at pacification were fruitless, because the Porte rejected every proposal, and Britain appeared to disapprove of the battle of Navarino. Codrington was recalled, and Malcolm took his place. In this state of uncertainty, Ibrahim was allowed to send a number of Greek captives as slaves to Egypt. In March, 1828, the war between Russia and Turkey broke out, and gave the Porte full occupation. In the mean time, the French cabinet, in concurrence with the British, to carry into execution the treaty of London, sent a body of troops to the Morea, whilst the British admiral Codrington concluded a treaty with the viceroy of Egypt, at Alexandria (August 6), the terms of which were that Ibrahim Pacha should evacuate the Morea with his troops, and set at liberty his Greek prisoners. Those Greeks who had been carried into slavery in Egypt, were to be freed or ransomed. 1200 men, however, were to be allowed to remain to garrison the fortresses in the Morea. To force Ibrahim to comply with these terms, the French general Maison arrived, on the 29th of the following August, with 154 transport-ships, in the Morea, in the bay of Coron, near Petalidi. After an amicable negotiation, Ibrahim left Navarino, and sailed (October 4) with about 21,000 men, whom he carried with the wreck of the fleet to Alexandria; but he left garrisons in the Messenian fortresses, amounting to 2500 men, consisting of Turks and Egyptians. Maison occupied the town of Navarino without opposition. He then attacked the Turkish fortresses in Messenia. The garrison made no resistance, and, on the other hand, the commanders would not capitulate. The French, therefore, almost without opposition, took possession of the citadels of Navarino (October 6), of Modon (on the 7th), and of Coron (on the 9th). The garrisons were allowed free egress. Patras, with 3000 men, capitulated (October 5) also, without resistance; and the flags of the three powers, parties to the treaty of London, waved with the national flag of Greece, on the walls of the cities.

Only the garrison of the castle of the Morea, on the Little Dardanelles, north of Patras, and the opposite Lepanto, rejected the capitulation of Patras. They murdered the pacha, and the French general Schneider was obliged to make a breach before the Turks surrendered at discretion (October 30). The Turks were all now carried to Smyrna by the French admiral Rigny. The commanders of Coron, Modon and Patras, Achmet Bey, Mustapha and Jacobi, fled to France, to escape the anger of the sultan. The gulf of Lepanto was declared neutral; yet the fort of Lepanto, in Rumelia, was not prevented from taking the customary tolls. Nothing hostile was undertaken against the Turks by the French out of the Morea, because the sultan would, in that case, have declared war against France. Britain and France carefully avoided such a result, that they might be able to mediate between the Porte and Russia. To defend the Morea, however, from new invasions from the Turks, the three powers at London, by their ministers, Aberdeen, Polignac and Lieven, agreed to send a manifesto to the Porte (Nov. 16, 1828) to this effect: that "they should place the Morea and the Cyclades under their protection till the time when a definitive arrangement should decide the fate of the provinces which the allies had taken possession of, and that they should consider the entrance of any military force into this country as an attack upon themselves. They required the Porte to come to an explanation with them concerning the final pacification of Greece." The French agent, Jaubert, carried this note to Constantinople. The Greeks, in the mean time, continued hostilities. The Greek admiral, Cochrane, came, after an absence of eight months (September 30), on board the new Greek steam-ship Hermes, at Poros; and Demetrius Ypsilanti having under him Colocotroni, Tsavellas, Dentsel, Bathros and others, forced his way into Hellas Proper (Livadia), at the head of 5000 men, beat the Turks at Lomotico (November 3), took Salona (December 3), then Lepanto, Livadia and Vonissa. Reschid Pacha had been recalled to Constantinople. An insurrection had broken out again in Candia, which occasioned the massacre of many Greeks in Kanea (August 14). Haji Michalis, a Moreot, who perished afterwards in battle, excited this unfortunate contest. Mustapha Pacha, who commanded the Egyptian troops at Candia, could with difficulty check the anger of the Turks against the Greek inhabitants. This massacre induced the British to close the port of Kanea. The Greeks took possession, however, of all the open country of Candia. The Russian admiral Ricord, with one ship of the line and three frigates, at Tenedos, had blockaded the Dardanelles, from the 14th of November, 1828, in order to prevent supplies of provisions and military stores from reaching Constantinople. The Greeks now fitted out a great number of privateers. The sultan, on this account, banished from Constantinople all the Greeks and Armenians not born in the city or not settled there, amounting to more than 25,000 persons. On the 29th, he announced in all the mosques, that the Mussulmans should remain all winter under arms and in the field, which had never till now been the case. At the same time, he called all the men, from seventeen to sixty years of age, to arms. Meantime the French were preparing to return to Toulon. A third of the troops, in January, 1829, left the Morea, where diseases and privations had destroyed many men. At this time, a scientific expedition of seventeen Frenchmen, in three sections under the direction of the royal academy, was prepared, by the French minister of the interior, to visit the Morea. The French government ransomed several hundred Greek slaves in Egypt, and the king of France undertook the education of the orphan children. Thus, after struggling for seven years, Greece was placed under the protection of the three chief European powers. Mahmoud, however, still declined to recall the edict of extermination, which he had pronounced when he commanded Dram Ali, a few years before, to bring him the ashes of the Peloponnesus. Ibrahim had wantonly burned down the olive groves as far as his Arabians spread, and the Greeks were sunk in the deepest misery and confusion. After unnumbered difficulties, the greatest obstacles to a well ordered government were in part overcome by Capo d'Istria. For this object, he divided (April 25, 1828) the Greek states into thirteen departments, seven of which formed the Peloponnesus (280,000 inhabitants, 8543 square miles); the eighth, the Northern Sporades (6200 inhabitants, 16 square miles); the ninth, the Eastern Sporades (56,800 inhabitants, 318 square miles); the tenth, the Western Sporades (40,000 inhabitants, 169 square miles); the eleventh, twelfth and thirteenth, the North, Central and South Cyclades (91,500 inhabitants, 117 square miles): the whole amount, therefore, was 476,500 inhabitants and 10,312 square miles. The first diplomatic agent to the Greek government, the British plenipotentiary, Dawkins, delivered his credentials to the president Nov. 19, 1828, and the French colonel Fabvier returned from France to the Morea, to organise the Greek army. The French envoy, Jaubert, delivered the protocol of the conference of the three great powers to the Porte in January, 1829. The verbal answer of the reis effendi was, that the Porte wished for peace, and would appoint negotiators on the arrival of the French and British plenipotentiaries; but that Russia could not be admitted to join in the mediation, nor should this act be considered as a renunciation of the sultan's rights upon the Morea. This answer was the foundation for the conference of the ministers of Britain, France and Russia (March 22, 1829), the protocol of which sets forth what course the powers intend further to pursue respecting the Porte. It was agreed that ambassadors from Great Britain and France should immediately proceed to Constantinople, and open a negotiation for the pacification of Greece, in the name of the three powers. The first subject proposed for the consideration of the Porte was the boundary of Greece. A line, beginning at the gulf of Volo, running thence to the head of the Othryx, following the course of that river to the summit east of Agrapha, which forms a junction with the Pindus, descending the valley of Aspropotamos by the south of Leontis, traversing the chain of the Macrinoros, and terminating at the gulf of Ambracia, was proposed as the northern boundary of Greece; the islands adjacent to the Morea, Eubœa or Negropont, and the Cyclades, were likewise to form a part of the new state. It was also to be proposed, that the Greeks should pay an annual tribute of 1,500,000 piastres; the first year's tribute, however, to be not less than a fifth, nor more than a third, of this amount, and to be gradually increased for four years, till it should reach the maximum: a joint commission of Turks and Greeks was to determine the indemnification of the Turks for the loss of property in Greece; the allied powers to appoint a committee of appeal, in case the former committee could not agree: Greece should enjoy a qualified independence, under the sovereignty of the Porte: the government to be under an hereditary Christian prince, not of the family of either of the allied sovereigns: at every succession of the hereditary prince, an additional year's tribute to be paid: mutual amnesty to be required, and all Greeks to be allowed a year to sell their property and leave the Turkish territories. The ambassadors were

:o to require a prolongation of the armistice already clared by the Turks, and a like cessation of arms ım the provisional government of Greece, and the :all of the troops, which had gone beyond the line awn as above from Volo to Arta. The three wers to guarantee all these points. Though Russia is to have no minister present at these negotiations, ey were to be conducted in her name, as well as in ose of France and Britain. It was near the iddle of July, before sir Robert Gordon and count uilleminot (the two ambassadors) arrived at Conantinople. Their reception deviated from former ages, particularly in the omission of the humiliat- g ceremonies to which Christian ambassadors were rmerly obliged to submit, which would have been mewhat out of season at this time, when Diebitsch ad already descended the southern slope of the Balkan. The history of their negotiations is of no nportance, because count Diebitch signed, with the Turkish plenipotentiaries, a treaty, by the sixth article of which the sultan formally acceded to the reaty of July 6, 1827. (See *Russia*, and *Turkey*.) The rotocol of the conference of March, 1829, could be considered by the Greeks only as a calamity.

The situation of the president, Capo d'Istria, had een extremely difficult, as the reader can easily imagine. He was without means, in a land torn by discord; yet his attention had been directed to every thing useful—the suppression of piracy; the formation of a regular army; the establishment of courts of justice; of schools of mutual instruction; of a system of coinage; of means for collecting the revenue, and providing for the subsistence of the wretched remnants of the population. In November, 1828, he proposed to the Panhellenion, to take immediate measures for calling together the fourth national assembly. The assembly met at Argos, and the president, in a long address (July, 23, 1829), gave an account of the state of the country and of his measures. He directed the attention of the assembly particularly to the organisation of the forces and the revenue. He says in the speech, "The decree respecting the organisation of the regiments, the edict relating to the marine service, and the measures to establish a national bank, and a general college, were the first steps towards the regulation of the interior. The Archipelago has been freed from pirates; our warriors are again united under their standards; one division, under the command of admiral Miaulis, has assured the free navigation of the Archipelago, and conveyed to our distressed brethren in Scio every consolation which it was in our power to offer. A second division, under vice-admiral Sactouri, was destined for the blockade, which the admirals of the allied powers compelled us to abandon." The address further refers to the plague brought by the army of Ibrahim Pacha, which extended from the islands to the Peloponnesus; to the expulsion of this pacha; the efforts of admiral Codrington, and the landing of the French; adding, "The Greeks of the continent, watching earnestly to see the borders of the Peloponnesus passed, manifested their wishes in this regard. We ourselves hoped to see them accomplished, for we were far from apprehending the diplomatic act which decided it otherwise." It acknowledges, with warm gratitude, the succours of the French in men and money, and alludes, in general terms, to the conferences with the ambassadors of the allied powers at Poros. A statement of receipts and expenditures, from January, 1828, to April 30, 1829, is also given. It is evident, from this address, that, since the protocol of the conference of March 22, 1829, the military operations of the Greeks, both by sea and land had been arrested by the interposition of the allies. In January, however, general Church had taken the town of Vonitsa, and the citadel surrendered in March; as did the castle of Rumelia, to Augustine Capo d'Istria, the brother of the president, in March 26. On February 9, Mahmoud, pacha of Livadia, with 3500 men, attacked the Greeks, commanded by the chiliarch Vasso, in their camp near Tolanti. The pacha was defeated. Livadia and Thebes, where Omer Pacha commanded, were evacuated soon after by the Ottoman troops. Lepanto surrendered, April 22, and Missolonghi and Anatolico on May 29. After the former had surrendered, 3000 Greeks marched to reinforce the corps then besieging Athens; but the operations were soon after arrested, in deference to the wishes of the allied powers. Immediately after the meeting of the assembly at Argos, general Church resigned his commission as commander-in-chief of the forces of Greece. Such was the state of things when the peace between Russia and the Porte was signed at Adrianople, Sept. 14, 1829, and ratified by the Porte, Sept. 20. The conferences between the ministers of the three powers, at London, had now for their object to select a prince to wear the crown of Greece. It was offered to prince Leopold of Saxe-Coburg, Feb. 3, 1830, and was accepted by him, as "sovereign prince of Greece," February 20. However, he resigned this honour in a declaration dated May 21, 1830. The two reasons which the prince alleges for his resignation are, the unwillingness of the Greeks to receive him, and their dissatisfaction at the settlement of the boundaries. He says that the answer of the president of Greece to the communication of his appointment, in his judgment, announces a forced submission to the allied powers, and even that forced submission is accompanied by reservations of the highest importance. The president of Greece states, that the provisional government, according to the decrees of the council of Argos, has no power to convey the assent of the Greek nation; and the government reserves to itself the power of submitting to the prince such observations as they cannot conceal from him, without betraying their trust towards Greece and the prince. In regard to the boundaries, his language is, that the uncompromising determination expressed by the Greek senate, to retain possession of the provinces which the allied powers wish to exclude from the limits of the new state, will oblige him either to compel his own subjects, by force of foreign arms, to submit to the cession of their estates and properties to their enemies, or to join with them in resisting or evading a part of that very treaty which places him on the throne of Greece. That one or the other alternative will be forced upon him is certain, because the part of the country referred to (Acarnania and a part of Ætolia, which is now to be given up to the Turks) is, together with the fortresses, in the peaceable possession of the Greeks. It is the country from which Greece can best supply herself with timber for building ships. It is the country which has furnished the best soldiers during the war. The chief military leaders of the Greeks have been of Acarnanian or Ætolian families. Subsequently to the arrival in Greece of the protocol of the 22d March, 1829, and the publication of the assent of the Turks to the excluded frontier in the treaty of Adrianople, all the families which had survived the war returned, and commenced rebuilding their houses and towns, and cultivating their lands. These people will never submit again to the Turkish yoke without resistance, and the other Greeks will not, cannot abandon them to their fate. The newspapers loudly reproached the prince for his resignation, ascribing it to fright at the picture which the president, Capo d'Istria, drew of the state of the country, or to the hope of becoming regent of the British empire, in case of the accession

of the minor princess, Victoria. It is hardly necessary, however, to look for motives beyond the distaste which a man of good feelings would naturally feel to assuming the government of a nation contrary to their will, and becoming, as he must become in such a case, a tyrant. After the resignation of Leopold, several princes were proposed as candidates for the throne, and at length Otho, a Bavarian prince, was nominated, and accepted the trust. Otho, therefore, is at present king of Greece, but how long he may hold his unstable honour, it would be rash to predicate.

By the protocol of Feb. 3, 1830, the boundary of Greece was settled as follows: On the north, beginning at the mouth of the Aspropotamos (Achelous), it runs up the southern bank to Angelo Castro; thence through the middle of the lakes Sacarovista and Vrachori to mount Artoleria; thence to mount Aziros, and along the valley of Culouri and the top of Œta to the gulf of Zeitun. Acarnania and a great part of Ætolia and Thessaly are thus excluded from the Greek state, and a Turkish barrier interposed between Greece and the Ionian Islands. Candia, Samos, Psarra, &c., are not included. The population of the state is estimated at about 635,000: 280,000 in the Peloponnesus; 175,000 in the islands; 180,000 on the Greek main-land.*

Modern Greek Language (called *Romaic*) *and Literature.* The manly attitude, assumed by the Greeks since 1821, has attracted attention to their language, which, even in its degeneracy, recalls the beauties of the ancient tongue. Grateful for the culture bestowed on it, the Greek language seems to have preserved its purity longer than any other known to us; and even long after its purity was lost, the echo of this beautiful tongue served to keep alive something of the spirit of ancient Greece. All the supports of this majestic and refined dialect seemed to fail, when the Greeks were enslaved by the fall of Constantinople (A. D. 1453). All the cultivated classes, who still retained the pure Greek, the language of the Byzantine princes, either perished in the conflict, or took to flight, or courted the favour of their rude conquerors, by adopting their dialect. In the lower classes only, did the common Greek survive (the *νέον, δημώδες, ἀπλοῦν, ἀκατέργαστον ἑλληνικόν*) the vulgar dialect of the polished classes, the traces of which occur, indeed, in earlier authors, but which first appears distinctly in the sixth century. This

* See Anderson's Observations on the Peloponnesus and Greek Islands, made in 1829 (1830). For further information, we refer the reader to Greece in 1823 and 1824, by colonel Leicester Stanhope (1825); also, the Picture of Greece in 1825 (2 vols. 1826); the History of Modern Greece, with a view of the Geography, Antiquities and present Condition of that Country (Boston, 1827); the Historical Sketch of the Greek Revolution, by Samuel G. Howe (New York, 1828); Travels in Greece, by J. P. Miller, (Boston, 1818); Visit to Greece and Constantinople, in the years 1827 and 1828, by H. A. V. Post (New York, 1829); Raffenel's (editor of the Spectateur Oriental at Smyrna, continued afterwards by Tricorni) Histoire des Evénemens de la Grèce (Paris, 1822); Considérations sur la Guerre actuelle entre les Grecs et les Turks, par un Grec (Paris, 1821); colonel Voutier's (who fought, in 1821 and 1822, in Greece) Mémoires sur la Guerre actuelle des Grecs (Paris, 1827); Agratis' Précis des Opérations de la Flotte Grecque, durant la Révolution de 1821 et 1822 (Paris, 1822), chiefly after the log-book of the Hydriot Jacob Tumbasis, who commanded a fleet, and fell in an engagement, in 1822); several publications by eye-witnesses, interesting as historical memoirs, by Müller, Lieber, &c. Ed. Blaquière wrote, on the spot, the Greek Revolution, its Origin and Progress, together with some Remarks on the Religion, &c., in Greece (London, 1824), with plates. Maxime Raybaud, an officer in the corps of Philhellenes, published Mémoires sur la Grèce pour servir à l'Histoire de la Guerre de l'Indépendance, 1821 et 1822, with topographical maps, (Paris, 1825, 2 vols.). See, also, Pouqueville's Histoire de la Régénération de la Grèce, &c., or the History from 1740 to 1824, with maps (Paris, 1824, 2d ed., 1826, 4 vols.); Villemain's Lascaris (Paris, 1826); La Grèce en 1821 et 1825; Correspondance politique, publiée par un Grec (Paris, 1825.)

nd in the Ionian Islands, most of which have since ased to exist. Even in Constantinople, in the reign f Selim III., some Fanariots (q. v.), especially the oble prince Demetrius Merousi, who founded a naonal academy at Kuru Tschesme in 1805, rendered reat services to the modern Greek language and terature. Gratitude to the mother was, with the est of Europe, a motive for attention to the daughr; and the language gained alike by the influence f the natives and of foreigners. The works printed t Jassy, Bucharest (where Spiridon Valetas, the ornament of the court in that place, translated, under he name of Aristomenes, the celebrated treatise of Rousseau, *Sur l'Inégalité des Conditions*), Venice, nd Leipsic were, at first, mostly theological; but, rith the increase of industry and commerce, particularly among the Hydriots, and of the wealth of indiiduals, the circulation of books was also enlarged by he assistance of foreign and cordial friends of the ation. The language itself, which in its degradaion was not destitute of melody and flexibility, gaind energy and vivacity from their efforts, although he attempts of some individuals to bring it nearer to he ancient classic dialect, did violence to its idiomaic character. (See *Coray*.) The attempt to bring he existing idiom nearer the Byzantine Greek, and he language of the patriarchs, made by the Athenan Codrica,—the warm adversary of Coray,—Jacoakis Rhisos, and many others, was more rational; and the periodical Ἑρμῆς λογιος, established at Vienna by the influence of Coray, with the other similar works which it called into existence, was not without effect. But every attempt will be vain to deprive the modern Greek language of its peculiar character, especially after a conflict which has excited so violently the feelings of the nation. The wealth of the modern Greek language, which former dictionaries show but very imperfectly, because it can only be fully exhibited by the assistance of many glossaries —Vendoti, Mod. Gr. Ital. and French (Vienna, 1790); Weigel, Mod. Gr. Germ. and Ital. (Leipsic, 1796); Cumas, Mod. Gr. Russ. and French (Moscow, 1811); Vlani, Mod. Gr. and Ital. (Venice, 1806); Schmidt's Mod. Gr. and Germ. Dict. (Leipsic, 1825)—would have been more fully displayed by the large dictionary, intended to fill six folio volumes, the superintendence of which was undertaken at Constantinople in 1821, by the patriarch Gregory (q. v.), but which was interrupted by the murder of the old man, April 22, 1821, with the destruction of so many institutions of learning fostered by him.*

For acquiring a knowledge of the language itself, which differs from the ancient chiefly in the formation of the tenses and in the terminations of the nouns, the means have now increased. The grammar of Christopylus, published in Vienna in 1805, which considers the modern Greek as Æolic-Doric, Schmidt's Modern Greek Grammar (Leipsic, 1808), and another German and Greek grammar, by Bojadschi (Vienna, 1821 and 1823), besides Jules David's very valuable *Méthode pour étudier la Langue Grecque Moderne*, (Paris, 1821), and a Συνοπτικος παραλληλισμος της Ελληνικης και Ιταλικης γλωσσης (Paris, 1820), W. Munich's Mod. Greek Grammar (Dresden, 1826), Von Ludemann's Manual of the Modern Greek Language (Leipsic, 1826), furnish important assistance. German philologists, such as Friedemann and Poppo, have, moreover, considered the relations of the modern Greek to the ancient. A work which is highly important for the language, as it exists, is the Remarks of H. Leake on the Languages spoken in Greece at the present Day, to be found in his Researches in Greece (1814). (See also the *Diction. Français Grec Moderne précédé d'un Discours sur la Grammaire et la Syntaxe de l'une et l'autre Langue par Grég. Zalicoglos*; Paris, 1824.) The literature of the modern Greeks, which had consisted chiefly of translations from the French, could not very much elevate the spirit of the people, as the matter presented was, in most cases, uncongenial to their character; but after the noble Coray, and others of similar sentiments, had devoted themselves to its improvement, a higher activity was perceptible. The school at Scio (unhappily destroyed by the massacre of April 11, 1822), which had existed since 1800; the academy at Yanina, whose director, Athanasius Psalida, was regarded as the first modern Greek scholar; and the academy founded by the French on the Ionian Islands, were points of union for the Greek youth, not without influence on the Greek people. Under the protection of England, and lord Guilford's wise care, the Greek spirit was gradually developed. An Ionic Greek university was opened at Corfu, by the direction of Canning, May 19, 1824. It consists of four faculties, for theology, law, medicine, and philosophy. Its chancellor was lord Guilford. The lectures are in the modern Greek language. The most distinguished professors are, Bambas of Scio, Asopios, and Piccolo (who delivers lectures on modern philosophy). In Paris, a distinct professorship of the modern Greek has existed for several years, and M. Clonaris delivers a course of very popular lectures on it. Those delivered by Jacobakis Rhisos Nerulos, at Geneva, were printed in a French translation (Geneva, 1827). In Munich, a professorship was afterwards established. In Vienna, Petersburg, Trieste, wealthy Greeks afforded important aid to the literature of their countrymen. In Odessa, a Greek theatre has existed for several years, where ancient Greek tragedies, translated into the modern language, delight the spectators. Such experiments were followed by original productions of Jacobakis Rhisos (Aspasia and Polyxena), of Piculos, and by translations of modern dramatic works by Oiconomos, Coccinakis, &c. The inspiring strains of Rhigas and Polyzois roused the military spirit of their countrymen. Christopylus, in the style of the Teian bard, pours out his cheerful strains; nor must Kalbo and Salomo of Zante be forgotten; the tone of the productions of Jannacateky Tianites of Constantinople, is more melancholy. Sakellario's muse is grave (Vienna, 1817), and Perdicari's, satirical. As an *improvisatore*, Nicolopylus met with applause at Paris. Andreas Mustoxydi, historian of the island of Corfu, is an ornament of modern Greek literature, equally distinguished as an Italian author, by his Life of Anacreon. Among the multitude of translators engaged on political works, Iskenteri, who translated Voltaire's *Zadig* into modern Greek, is highly esteemed. Bambas, Cumas, (the translator of Krug's System of Philosophy), Alexandridis, Anthimos Gasis, Ducas, Gubdelas, Codricas, Condos, Mich. Schinas, Spyridon Tricoupi, Solyzoides, were names distinguished before the beginning of the late desolating troubles. The *Melissa* (the Bee), a modern Greek journal, published by Spyridon Condos and Agathophron, in Paris, in 1821, was discontinued when the contributors engaged in the war of liberty. On the whole, about 3000 works in the modern Greek language have appeared within fifty years. Fauriel, a Frenchman, collected all the popular modern Greek songs (Paris, 1824—25, 2 vols.), and in them has given the public a commentary on the events of the day. For more minute information, we refer to Iken's *Hellenion* and *Leucothea*, and to the periodicals. Consult Jul. David's Comparison of the Ancient and Modern Greek languages (translated from

* The first and second volumes of this *Ark of the Greek Language*, appeared at Constantinople in 1819, etc., from the press of the patriarch in the Fanar.

the modern Greek by Struve, Berlin, 1827); Minoides Minas, *Traité sur la véritable Prononciation de la Langue Grecque* (Paris, 1827). Coray's system is at present generally adopted, to enrich and ennoble the modern Greek language from the treasures of the ancient Greek, avoiding the too difficult inflections, and removing the Germanisms and Gallicisms introduced by translations.

Greek Church; that portion of Christians who conform, in their creed, usages, and church government, to the views of Christianity introduced into the former Greek empire, and perfected, since the fifth century, under the patriarchs of Constantinople, Alexandria, Antioch, and Jerusalem. Christendom, which, with difficulty, had been brought to a state of concord in the fourth and fifth centuries, already contained the germ of a future schism, by reason both of its extent, as it embraced the whole east and west of the Roman empire, and of the diversity of language, modes of thinking, and manners, among the nations professing it. The foundation of a new Rome in Constantinople; the political partition of the Roman empire into the Oriental, or Greek, and the Occidental, or Latin; the elevation of the bishop of Constantinople to the place of second patriarch of Christendom, inferior only to the patriarch of Rome, effected in the councils of Constantinople, A. D. 381, and of Chalcedon, A. D. 451; the jealousy of the latter patriarch towards the growing power of the former,—were circumstances, which, together with the ambiguity of the edict known under the name of the *Henoticon*, granted by the Greek emperor Zeno, A. D. 482, and obnoxious to the Latins on account of the appearance of a deviation from the decrees of the council of Chalcedon, produced a formal schism in the Christian church. Felix II., patriarch of Rome, pronounced sentence of excommunication against the patriarchs of Constantinople and Alexandria, who had been the leading agents of the Henoticon, A. D. 484, and thus severed all ecclesiastical fellowship with the congregations of the East, attached to these patriarchs. The sentiments of the imperial court being changed, the Roman patriarch Hormidas was able, indeed, to compel a reunion of the Greek church with the Latin, in 519; but this union, never seriously intended, and loosely compacted, was again dissolved by the obstinacy of both parties, and the Roman sentence of excommunication against the Iconoclasts among the Greeks, A. D. 733, and against Photius, the patriarch of Constantinople, A. D. 862. The augmentation of the Greek church, by the addition of newly converted nations, as the Bulgarians, excited anew, about this time, the jealousy of the Roman pontiff; and his bearing towards the Greeks was the more haughty since he had renounced his allegiance to the Greek emperor, and had a sure protection against him in the new Frankish-Roman empire. Photius, on the other hand, charged the Latins with arbitrary conduct in inserting an unscriptural addition into the creed respecting the origin of the Holy Ghost, and in altering many of the usages of the ancient orthodox church; for example, in forbidding their priests to marry, repeating the chrism, and fasting on Saturday, as the Jewish sabbath. But he complained, with justice, in particular, of the assumptions of the pope, who pretended to be the sovereign of all Christendom, and treated the Greek patriarchs as his inferiors. The deposition of this patriarch, twice effected by the pope, did not terminate the dispute between the Greeks and Latins; and when the patriarch of Constantinople, Michael Cerularius, added to the charges of Photius, against the Latins, an accusation of heresy, in 1054, on account of their use of unleavened bread at the communion, and of the blood of animals that had died by strangulation, as well as on account of the immorality of the Latin clergy in general, Pope Leo IX., having, in retaliation, excommunicated him in the most insulting manner, a total separation ensued of the Greek church from the Latin. From this time, pride, obstinacy, and selfishness frustrated all the attempts which were made to reunite the severed churches, partly by the popes, in order to annex the East to their see, partly by the Greek emperors (equally oppressed by the crusaders and Mohammedans), in order to secure the assistance of the princes of the West. Neither would yield to the other in respect to the contested points, on which we have touched above. While the Catholic religion acquired a more complete and peculiar character under Gregory VII., and through the scholastic philosophy, the Greek church retained its creed, as arranged by John of Damascus, in 730, and its ancient constitution. The conquest of Constantinople by the French crusaders and the Venetians, A. D. 1204, as the cruel oppressions which the Greeks had to endure from the Latins and the papal legates, only increased their exasperation; and although the Greek emperor Michael II. (Palæologus, who had reconquered Constantinople in 1261) consented to recognise the supremacy of the pope, and by his envoys and some of the clergy, who were devoted to him, abjured the points of separation, at the assembly, at Lyons, A.D. 1274; and though a joint synod was held at Constantinople, in 1277, for the purpose of strengthening the union with the Latin church, the mass of the Greek church was nevertheless opposed to this step, and pope Martin IV., having excommunicated the emperor Michael, in 1281, from political motives, the councils held at Constantinople, in 1283 and 1285, by the Greek bishop, restored their old doctrines and the separation from the Latins. The last attempt was made by the Greek emperor John VII. (Palæologus, who was very hard pressed by the Turks), together with the patriarch Joseph, in the councils held, first at Ferrara, in 1438, and the next year at Florence, pope Eugene IV. presiding; but the union concluded there had the appearance of a submission of the Greeks to the Roman see, and was altogether rejected by the Greek clergy and nation, so that, in fact, the schism of the two churches continued. The efforts of the Greek emperors, on this point, who had always had most interest in these attempts at union, ceased with the overthrow of their empire and the conquest of Constantinople by the Turks, A. D. 1453; and the exertions of the Roman Catholics to subject the Greek church, effected nothing but the acknowledgment of the supremacy of the pope by some congregations in Italy (whither many Greeks had fled before the Turks), in Hungary, Galicia, Poland, and Lithuania, which congregations are now known under the name of *United Greeks*. In the seventh century, the territory of the Greek church embraced, besides that Illyria, Greece Proper, with the Morea and the Archipelago, Asia Minor, Syria, with Palestine, Arabia, Egypt, and numerous congregations in Mesopotamia and Persia; but the conquests of Mohammed and his successors have deprived it, since 630, of almost all its provinces in Asia and Africa; and even in Europe the number of its adherents was considerably diminished by the Turks in the fifteenth century. On the other hand, it was increased by the accession of several Sclavonian nations, and especially of the Russians, who were compelled by the great prince Wladimir, in the year 988, to adopt the creed of the Greek Christians. To this nation the Greek church is indebted for the symbolical book, which, with the canons of the first and second Nicene, of the first, second, and third Constantinopolitan, of the Ephesian and Chalcedonian general councils, and of the Trul-

in council, holden at Constantinople in 692, is the sole authority of the Greek Christian in doctrinal matters. After the learned Cyrillus Lascaris, patriarch of Constantinople, had atoned, with his life, for the approach to Protestantism perceptible in his creed, A. D. 1629, an exposition of the doctrine of the Russians was drawn up, in the Greek language, by Pet. Mogislaus, bishop of Kiev, in 1642, under the title of the Orthodox Confession of the Catholic and Apostolic Church of Christ, signed and ratified, 1643, by all the patriarchs of the Greek Church, to whom had been added, in 1589, the fifth patriarch of Moscow. It was printed in Holland, in Greek and Latin, 1662, with a preface by the patriarch Nectarius of Jerusalem. In 1696, it was published by the last Russian patriarch, Adrianus of Moscow; and, in 1722, at the command of Peter the Great, by the holy synod; it having been previously declared to be in all cases valid, as the ritual of the Greek church, by a council at Jerusalem, in 1672, and by the ecclesiastical rule of Peter the Great, drawn up, in 1721, by Theophanes Procowics.

Like the Catholic, this church recognises two sources of doctrine, the Bible and tradition, under which last it comprehends not only those doctrines which were orally delivered by the apostles, but also those which have been approved of by the fathers of the Greek church, especially John of Damascus, as well as by the seven above-named general councils. The other councils, whose authority is valid in the Roman Catholic church, this church does not recognise; nor does it allow the patriarchs or synods to introduce new doctrines. It treats its tenets as so entirely obligatory and necessary, that they cannot be denied without the loss of salvation. It is the only church which holds that the Holy Ghost proceeds from the Father only, thus differing from the Catholic and Protestant churches, which agree in deriving the Holy Ghost from the Father and the Son. Like the Catholic church, it has seven sacraments—baptism, chrism, the eucharist preceded by confession, penance, ordination, marriage and supreme unction; but it is peculiar, 1. in holding that full purification from original sin in baptism requires an immersion three times of the whole body in water, whether infants or adults are to be baptised, and in joining chrism (confirmation) with it as the completion of baptism; 2. in adopting, as to the eucharist, the doctrine of transubstantiation, as well as the Catholic views of the host; but it orders the bread to be leavened, the wine to be mixed with water, and both elements are distributed to every one, even to children, before they have a true idea of what sin is, the communicant receiving the bread broken in a spoon filled with the consecrated wine; 3. all the clergy, with the exception of the monks, and of the higher clergy chosen from among them, down to the bishops inclusive, are allowed to marry a virgin, but not a widow; nor are they allowed to marry a second time; and therefore the widowed clergy are not permitted to retain their livings, but go into a cloister, where they are called *hieromonachi*. Rarely is a widowed clergyman allowed to preserve his diocese; and from the maxim, that marriage is not suitable for the higher clergy in general, and second marriage at least is improper for the lower, there is no departure. The Greek church does not regard the marriage of the laity as indissoluble, and frequently grants divorces; but is as strict as the Catholic church with respect to the forbidden degrees of relationship, especially of the ecclesiastical relationship of god-parents; nor does it allow the laity a fourth marriage. It differs from the Catholic church in anointing with the holy oil, not only the dying, but the sick, for the restoration of their health, the forgiveness of their sins, and the sanctification of their souls. It rejects the doctrine of purgatory, has nothing to do with predestination, works of supererogation, indulgences, and dispensations (to the living; but a printed form for the forgiveness of sin is sometimes given to the deceased, at the request and for the comfort of the survivors); and it recognises neither the pope nor any one else as the visible vicar of Christ on earth. It moreover allows no carved, sculptured, or molten image of holy persons or subjects; but the representations of Christ, of the virgin Mary, and the saints, which are objects of religious veneration in churches and private houses, must be merely painted, and, at most, inlaid with precious stones. In the Russian churches, however, works of sculpture are found on the altars. In the invocation of the saints, and especially of the virgin, the Greeks are as zealous as the Catholics. They also hold relics, graves, and crosses sacred; and crossing in the name of Jesus, they consider as having a wonderful and blessed influence. Among the means of penance, fasts are particularly numerous with them, at which it is not lawful to eat any thing but fruits, vegetables, bread, and fish. They fast, Wednesday and Friday of every week; and, besides, observe four great annual fasts, viz., forty days before Easter, from Whitsuntide to the days of St Peter and Paul; the fast of the virgin Mary, from the 1st to the 15th of August; and the apostle Philip's fast, from the 15th to the 26th of November; besides the day of the beheading of John the Baptist, and of the elevation of the cross.

The services of the Greek church consist almost entirely in outward forms. Preaching and catechising constitute the least part of it; and, in the seventeenth century, preaching was strictly forbidden in Russia, under the czar Alexis, in order to prevent the diffusion of new doctrines. In Turkey, preaching was confined almost exclusively to the higher clergy, because they alone possessed some degree of knowledge. Each congregation has its appointed choir of singers, who sing psalms and hymns. The congregations themselves do not, like us, sing from books; and instrumental music is excluded altogether from the Greek worship. Besides the mass, which is regarded as the chief thing, the liturgy consists of passages of Scripture, prayers, and legends of the saints, and in the recitation of the creed, or of sentences which the officiating priest begins, and the people in a body continue and finish. The convents conform, for the most part, to the strict rule of St Basil. The Greek abbot is termed *higumenos*, the abbess *higumene*. The abbot of a Greek convent, which has several others under its inspection, is termed *archimandrite*, and has a rank next below that of bishop. The lower clergy in the Greek church consist of readers, singers, deacons, &c., and of priests, such as the popes and protopopes of archpriests, who are the first clergy in the cathedrals and metropolitan churches. The members of the lower clergy can rise no higher than protopopes; for the bishops are chosen from among the monks, and from the bishops, archbishops, metropolitans, and patriarchs. In Russia, there are thirty-one dioceses. With which of them the archiepiscopal dignity shall be united, depends on the will of the emperor. The seats of the four metropolitans of the Russian empire are Petersburg, with the jurisdiction of Novgorod; Kiev, with that of Galicia; Kasan, with that of Svijaschk; and Tobolsk, with that of all Siberia. The patriarchal dignity of Moscow, which the patriarch Nikon (died in 1681) was said to have abused, Peter the Great abolished, by presenting himself before the bishops, assembled, after the death of Adrin, 1702, to choose a new patriarch, with the words, "I

am your patriarch;" and, in 1721, the whole church government of his empire was intrusted to a college of bishops and secular clergy, called the *holy synod*, first at Moscow, now at Petersburg. Under this synod now stand, beside the metropolitans, eleven archbishops, nineteen bishops, 12,500 parish churches, and 425 convents, fifty-eight of which are connected with monastic schools for the education of the clergy, and, for the better effecting of this object, are aided by an annual pension of 300,000 rubles from the state. The Greek church, under the Turkish dominion, remained, as far as was possible under such circumstances, faithful to the original constitution. The dignities of patriarch of Constantinople, Alexandria, Antioch, and Jerusalem still subsist. The former, however, possesses the ancient authority of the former archbishop of Constantinople; takes the lead as œcumenical patriarch, in the holy synod at Constantinople, composed of the four patriarchs, a number of metropolitans and bishops, and twelve principal secular Greeks; exercises the highest ecclesiastical jurisdiction over the Greeks in the whole Turkish empire, and is recognised as head of the Greek church, by the (not united) Greeks in Galicia, in the Bukowina, in Sclavonia and the Seven Islands. The other three patriarchs, since almost all the people in their dioceses are Mohammedans, have but a small sphere of action (the patriarch of Alexandria has but two churches at Cairo), and live, for the most part, on the aid afforded them by the patriarch of Constantinople. This patriarch has a considerable income, but is obliged to pay nearly half of it as a tribute to the sultan. The Greeks, under the Turkish government, are allowed to build no new churches, have to pay dearly for the permission to repair the old ones, are not allowed to have steeples or bells to their churches, nor even to wear the Turkish dress, generally perform religious service by night, and are moreover obliged, not only to pay tolls, from which the Turks are free, but the males also pay to the sultan, after their fifteenth year, a heavy poll tax, under the name of *exemption from beheading*.

For a long time the attachment of this church to old institutions has stood in the way of all attempts at improvement. Such attempts have given rise to a number of sects, which the Russian government leaves unmolested. As early as the 14th century, the party of the Strigolnicians seceded from hatred of the clergy, but, as they had no other peculiarity, soon perished. The same was done with more success, by the Roskolnicians (i. e., the apostates), about 1666. (See *Roskolnicians*.) This sect, which, by degrees, was divided into twenty different parties, by no means forms a regular ecclesiastical society, with symbols and usages of its own, but consists of single congregations, independent of each other, which are distinguished from the Greek church by preserving, unaltered, the ancient Sclavonian liturgy, &c.; have a consecrated clergy; and, having retired from early persecution, have become numerous in the eastern provinces of the Russian empire. The different parties conform, more or less, to the peculiarities attributed to the Roskolnicians in general, such as declaring the use of tobacco and of strong drinks sinful, fasting yet more strictly than the orthodox church, refusing to take oaths; and are, from a fanatical spirit similar to that of the former Anabaptists, inclined to rebellion against their rulers. Pugatschew, himself a Roskolnician, found most of his adherents among them in his rebellion. At present, they have relaxed much of their strictness on these points, as well as their fantastic notions with respect to marriage, dress, the priesthood, and martyrdom, and seem to be gradually merging among the orthodox. The Philippones (q. v.) were called Roskolnicians, who settled in Lithuania and East Prussia, under Philip Pustoswiet. Farther removed from the belief of the Greek church are the Duchoborsy, a sect settled on the steppes beyond the Don, which rejects the doctrine of the Trinity, and receives the Gospels only, has no churches nor priests, and regards oaths, as well as warfare, unlawful. Antitrinitarians, of a similar kind, are the *Russian Jews*, as they are called, in the government of Archangel and Katharinoslav, of whom it is only known that they worship neither Christ nor the saints, reject baptism, and have no priests nor churches. Respecting the ancient schismatical and heretical religious parties in Asia and Africa, that have proceeded from the Greek church, see *Copts*, *Abyssinia*, *Jacobites*, *Nestorians*, *Maronites*, *Armenians*.

GREEK FIRE. See *Fire, Greek*.

GREEN, a river of Kentucky, which rises in Lincoln county, and flows into the Ohio, sixty-six miles above the Wabash, 173 below Louisville. In its course for about 150 miles is westerly; it afterwards has a course N. by W. Its whole length is upwards of 200 miles, and it is navigable for boats, at some seasons, nearly 150. The tract through which it flows, called the *Green river country*, is remarkable for its fertility, beautiful scenery and stupendous caves, in which are found great quantities of nitre.

GREEN BANK; one of the banks near the island of Newfoundland, 129 miles long and forty-eight wide. Lon. 53° 30′ to 55° 30′ W.; lat. 45° 30′ to 46° 50′ N.

GREEN BAY, or PUAN BAY; bay on W. side of lake Michigan, about 100 miles long, but in some places only fifteen miles, in others from twenty to thirty, broad. It lies nearly from N. E. to S. W. At the entrance of it from the lake is a string of islands extending N. to S. called the *Grand Traverse*. These are about thirty miles in length, and serve to facilitate the passage of canoes, as they shelter them from the winds, which sometimes come with violence across the lake. Green bay is termed by the inhabitants of its coasts, the *Menominy bay*. The country around is occupied chiefly by the Menominy Indians.

GREEN CLOTH; a board or court of justice, held in the counting-house of the king's household, composed of the lord steward and officers under him, who sit daily. To this court is committed the charge and oversight of the king's household in matters of justice and government, with a power to correct all offenders, and to maintain the peace of the verge, or jurisdiction of the court royal, which is every way about 200 yards from the last gate of the palace where his majesty resides. Without a warrant first obtained from this court, none of the king's servants can be arrested for debt.

GREEN GAGE; a variety of the plum, the *reine claude* of the French, usually considered the most delicious of all. It is large, of a green or slightly yellowish colour, and has a juicy, greenish pulp of an exquisite flavour.

GREENLAND (*Groenland*); an extensive country of north America, belonging to Denmark, the extent of which is unknown. Since lieutenant (now Sir William Edward) Parry advanced from Baffin's bay into Lancaster sound (1819), it has been supposed to be an island. As far as it is now known, it extends from lat. 59° 38′ to 78° N. Its southern point is cape Farewell. On the western coast lie Davis's straits and Baffin's bay. It is divided into two parts by a chain of mountains passing through the middle of the country from north to south. Greenland was settled 800 years ago, by two colonies from Norway and Denmark, of which the

occupied the eastern, the other the western st. Their intercourse was carried on by sea, the ntains rendering any communication by land im- sible. A Runic stone found in Greenland in 1824 w in the museum of northern antiquities at Copen- en) proves the early discovery of Greenland from ndinavia. The western colony, after numerous ssitudes, still exists. The population in the thern part to the river Frith (68°), amounted in 1—13, to 3583: northern Greenland contained y 3000 natives. From 67° to 69°, the country is nhabited. The fate of the eastern colony, which 406 consisted of 190 villages, and had a bishop, lve parishes and two monasteries, is unknown. to that time sixteen bishops had been sent from way in regular succession; the seventeenth was vented by the ice from reaching the land. Danish lors, in the sixteenth and seventeenth centuries, empted without success, to land on the eastern st. Attempts made in 1786 and 1829, by the mmand of the Danish government, failed. This t East Greenland, Von Egger, in his Prize say (1794), maintains, is the country now called *Lianenshaab*, on the western coast: but a manu- ipt now in the library at Dresden, maintains that old settlement of Osterbygde was actually on eastern coast of Greenland. A traveller of the rteenth century, Nicolas Zeno, describes Green- d as it existed in his time. In 1818, Britain sent expedition to the Polar sea, because the ice at north pole was said to have decreased, and a rth-west passage was believed practicable; the ips returned, however, without accomplishing any ing. Captain Scoresby found the eastern coast e from ice in 1822; he sailed along it from 75° 69°, and examined it with care (see his *Journal of Voyage to the Northern Whale-Fishery*, &c., 1822). o this traveller we are indebted for the latest and ost correct accounts of East Greenland, which re- te Egger's opinions. He found fields producing xuriant grass, but no inhabitants. He met, how- er, with some houses, containing household uten- ls and hunting apparatus, and a wooden coffin. aptain Sabine describes the eastern coast of Green- nd (see his *Experiments to determine the Figure of e Earth*, &c.), from 72° to 76° N. latitude. He also und it impossible, on account of the permanent ass of ice, to approach the eastern coast north of 1°; his examinations proved that there was no cur- ent which carries the ice from those coasts towards he south. The western coast was also cut off, in he middle of the fourteenth century, from its usual ntercourse with Norway and Iceland, by a dreadful lague, called the *black death*. In the reign of queen lizabeth, Frobisher and Davis again discovered this oast of Greenland. From that time, nothing was one to explore this country, until the Danish go- ernment, in 1721, assisted a clergyman, Hans Egede, with two ships, to effect a landing in 64° 5′, nd establish the first European settlement, Good lope (*Godhaab*), on the river Baal. Egede found he country inhabited by a race of people which had robably spread from the west over Davis's straits, nd which resembled the Esquimaux of Labrador in heir language and customs. In 1733, the Moravian Brothers were induced by count Zinzendorf to at- empt the establishment of settlements and missions n these inhospitable shores. There are now on the western coast of Greenland twenty settlements, of which the most southerly, Lichtenau, is situated in 60° 34′ N. latitude. Near it is the second settle- ment, Juliana's Hope (*Julianenshaab*): in the vici- nity, the ruins of an old Icelandic and Norwegian church are still visible. Farther to the north lie Frederic's Hope, Lichtenfels, Good Hope, New Herrnhut, Zuckerhut, Holsteinburg, Egedesminde, Christian's Hope, Jacobshaven, Omenack, and Up- pernamick, in 72° 32′ N. latitude, the most northern settlement, now occupied only by Greenlanders. The governor of South Greenland has his seat in Good Hope, and the governor of North Greenland is stationed at Guthaven, on the island of Disco, in 70° N. latitude. There are five Protestant churches on the coast, in which the gospel is preached in the Danish and Greenlandish dialects. The Moravian Brothers have three houses of public worship in Lich- tenau, Lichtenfels, and New Herrnhut.

The natives of Greenland, called by the oldest Icelandish and Norwegian authors, *Skrellings*, belong to the Esquimaux family, which is spread over all the northern part of America, to the western coast. They are remarkable for their diminutive stature; their hair is dark, eyes black, heads disproportion- ately large, legs thin, and complexion a brownish yellow, approaching to olive green. This, however, is partly owing to their filthy manner of living, and partly to their food and occupations, as they are con- stantly covered with blubber and train oil. The women, being employed, from early youth, in carry- ing heavy loads, are so broad shouldered, as to lose all feminine appearance. Their dress contributes to this effect; they wear the skins of seals and reindeer. The short coats, the trowsers, and boots of both sexes, are all made of the same material. In ex- tremely cold weather, they wear a shirt made of the skins of birds, particularly those of the sea-raven, the eider duck, &c. In winter, they live in houses of stone, with walls two feet in thickness, covered with brushwood and turf, and with an entrance so small, that it can be passed only on the hands and feet. Windows are seldom met with in these huts; those which they have are made of the intestines of whales and seals. The height of the house never exceeds six feet; it is twelve feet wide, and of about the same length. It consists of one room only, with a raised platform on one side, covered with seal-skin, which serves the double purpose of a bed and a table. Lamps, supplied with train-oil, are kept constantly burning, as much for the sake of warmth as of light. The smell from so many oil lamps, together with that of the fish, raw skins, and greasy inhabitants, is hard- ly to be endured by unaccustomed nostrils; and the filthy condition of the huts breeds immense quantities of vermin. When the snow melts, which is gener- ally the case in May, the roof of the house generally sinks in, and the Greenlander then spreads a tent, which is covered with seal skin, and surrounded with a curtain of the intestines of whales; the interior is arranged like the winter establishment. Their uten- sils and tools are simple, but ingeniously contrived,

They consist of bows and arrows, lances, javelins, and harpoons. Their canoes are made of laths, bound by whalebone, and covered with dressed seal-skin. They show a wonderful skill in managing them, even in the most boisterous weather. They also use sledges, drawn by dogs, in which they sometimes go from thirty to forty miles from the land on the frozen sea. The swiftness of these animals is such, that in nine or ten hours, they accomplish a distance of about sixty miles. The language of the Greenlanders is the same as that spoken by the Esquimaux in Labrador, and on the shores of Hudson's bay. Traces of it are also said to be found on the north-west coast of America, as far as Nootka sound. The variety in the forms of the verbs, in combination with the pronouns, is a remarkable peculiarity of this language. The superstitious Greenlanders pay great respect to their *angekoks* or sorcerers, who are at the same time their priests and physicians. They have but very rude notions of a Supreme Being.

During the prevalence of the north-east winds, the cold is often so great, that the mercury sinks to 48° below the freezing point of Fahr. The west winds coming from Davis's straits are always damp, and accompanied by thaws. The basis of the mountains and rocks is a fine-grained granite, with gneiss, mica slate, hornblende, and whitestone. Many interesting and uncommon minerals are found—magnetic iron ore, gadolinite, sircon, schorl, tourmaline, the finest garnets, sodalite, iolite, and hypersthene of a beautiful light blue. Among the animals are the polar fox, the white hare, the reindeer, the white bear, the arctic fox, the walrus, various kinds of seals, and the narval. The Greenland whale (see *Whale*, and *Whale Fishery*) is found in great numbers and of an enormous size. Of the birds, the principal is the cinereous eagle; the snowy owl, and others of the falcon tribe, inhabit the high rocks; the water-fowl are numerous. A species of mosquito, is exceedingly troublesome in the warm weather. The exports are whalebone, oil, skins, and furs, eider down, the horns of the narval, &c. The imports are provisions, gunpowder, cotton and linen goods, iron and glass wares, &c. In the inlets and bays which intersect the coast of Greenland, immense masses of ice are accumulated during a series of years, which, being loosened during the heat of summer, lose their points of support from the shore, and plunge into the ocean with a thundering noise. Being afterwards set adrift by the currents, they embarrass the navigation of the polar seas, and become the terror of the mariner. Those masses of ice are formed both of fresh and of salt water, and sometimes rise more than 500 feet above the surface of the water. The salt water ice occurs in immense fields, of many thousand fathoms in length and breadth, divided by fissures, but following close on each other. When the wind begins to blow, and the sea to rise in vast billows, the violent shocks of those masses of ice against each other, fill the mind with astonishment and terror. The coasts of Greenland are surrounded by many thousand islands of different sizes, on which the native inhabitants frequently fix their residence, on account of their good situation for sea game.

GREEN MOUNTAINS; a range of mountains, commencing in Canada, and extending south through Vermont, Massachusetts, and Connecticut. They divide the waters which flow into the Connecticut from those which flow into lake Champlain and the Hudson. Among the highest summits in Vermont are Mansfield mountain, Camel's rump, and Killington peak. West rock, near New Haven, Conn., is the southern termination of the chain. The natural growth upon these mountains is hemlock, pine, spruce, and other evergreens, and they derive their name from their green appearance. There are many fine farms among these mountains, and much of the land upon them is excellent for grasing.

GREENOCK, an important sea-port town in Renfrewshire, Scotland, situated on the southern bank of the firth of Clyde, twenty-two miles below Glasgow, lat. 55° 57′ 2″ N.; long. 4° 45′ 30″ W. The name Greenock is supposed to be derived either from the British *Graenag*, signifying a gravelly or sandy place, or from the Gaelic *Grainseach*, signifying a sandy bay. The town of Greenock is, comparatively, of recent erection. Crawford's Dyke, which forms now an eastern suburb of the town, was erected into a borough of barony in 1633, by Charles I. Its quay or pier is older than that of Greenock, the quay of the latter not having been begun before 1707. In 1636, Greenock was formed into a parish, but for more than half a century consisted only of a row of thatched cottages, stretching along the bay, and inhabited by poor fishermen. Sir John Shaw, the laird of the place, in 1696, made application to the Scottish parliament for public aid to build a harbour, but was unsuccessful. The inhabitants, feeling the importance of the measure, afterwards entered into a contract with their baron, and agreed to assess themselves in the sum of 1s. 4d. sterling on each sack of malt brewed into ale within the village, the money so levied to be applied in defraying the cost of erecting a harbour. A harbour was, in consequence, begun in 1707; and more than ten acres were enclosed by two circular quays, with the intervention of a middle one; the whole consisting of about 2000 feet of stone work, executed at the expense of £5625. By the year 1740, the whole of this sum was cleared, with a surplus of £1500.

Since that time the old harbourage accommodation has been almost entirely renewed at an expense, including the construction of several docks, of above £120,000; and, in every respect, Greenock is now the most convenient port in Scotland, with the exception, perhaps, of Dundee. The extent of the quays is as follows:—

	Feet.
East quay,	531
Entrance to Harbour,	105
Custom-house quay,	1655
Entrance to harbour,	105
West quay,	425
Extreme length from east to west,	2801
Breadth of piers,	60

The road or outer harbour is narrowed by a sand bank of considerable breadth, stretching from Dunbarton to a short distance below the town. At the bottom or tail of the bank, and which, as a landing place, experienced mariners prefer to any other in the firth, there is at all times sufficient depth of water, abundance of room, and good anchorage for hundreds of ships of any burden. Nearly opposite to this, on the south-west, is erected a battery, which commands the entrance into the Clyde.

After the erection of the harbour, Greenock continued to increase gradually, until the middle of the last century, when its advances to commercial importance were strikingly rapid. It participated largely with Glasgow in the tobacco trade with the American colonies, and, like Glasgow, suffered much by the breaking out of the revolutionary war. But it speedily recovered its prosperity, and became the centre of commerce for the west of Scotland. The progressive increase of its trade is well illustrated by the increase upon its Custom-house receipts. In 1728, the gross receipt of its customs was £15,231; in 1770, £57,336; in 1794, £77,680; in 1804, £211,087; in 1814, £376,713; in 1828, £485,906; in 1829, £432,435; in 1830, £554,961; in 1831, £592,008; in 1832, £564,548; in 1833, the year a

hich the privilege of bonding tobacco was extended Glasgow, £450,425; and in 1834, £482,138. s principal imports are sugar, rum, coffee, cotton, mber, ashes, grain, &c., from the West and East dies, North and South America, and the Mediter-nean. It also carries on an extensive coasting ade with the Western Highlands and Ireland, hich, however, has somewhat declined since the roduction of steam boats opened a direct com-unication between these places and Glasgow. The uring and exporting of herring forms an important anch of the trade of Greenock, being to the extent about 20,000 barrels annually. The Greenland hale-fishing trade was formerly prosecuted by the erchants of Greenock, but has of late years been undoned. The following tables exhibit the imports d exports of Greenock for the years 1830 to 1835, clusive, also the number of vessels and amount tonnage belonging to the port, with the value of e British goods exported to foreign parts.

Account of the Number of Registered Vessels, &c.

	No.	Tonnage.	Men.
At 31st December, 1829	361	35,976	2619
.. .. 1830	341	33,668	2304
.. .. 1831	346	34,563	2398
.. .. 1832	362	37,539	2527
.. .. 1833	366	38,740	2633
.. .. 1834	367	40,733	2656

Account of the Number and Tonnage of Vessels Entered Inwards and Cleared Outwards, to Foreign Parts and Coastwise, in the years ending 5th January, 1830 to 1835, inclusive, (with Cargoes).

	FOREIGN TRADE.								COASTING TRADE.			
	Inwards.				Outwards.							
	British.		Foreign.		British.		Foreign.		Inwards.		Outwards.	
	No.	Tons.	No.	Tons.	No.	Tons.	No	Tons.	No.	Tons.	No.	Tons.
1830	211	35,649	10	2579	205	53,475	7	2130	694	67,894	796	81,988
1831	189	49,827	14	4300	228	54,226	13	3405	684	65,072	799	80,896
1832	253	64,296	21	5056	253	61,732	16	4092	596	64,316	844	88,828
1833	208	66,638	16	3632	268	67,263	15	3756	680	67,542	818	84,250
1834	277	69,849	10	2072	284	71,698	8	2140	709	68,045	811	83,533
1835	253	67,716	21	5353	273	67,909	11	3599	989	103,186	984	95,179

Account of the Value of British Goods Exported to Foreign parts.

In the year ending 5th January, 1831	£1,493,406
.. 1832	1,662,251
.. 1833	1,452,334
.. 1834	1,459,086
.. 1835	1,376,526

The chief manufactures of Greenock are connected with its shipping. Ship-building is carried on here to a great extent, and some of the finest vessels which sail the seas, have been launched from this port. The building yard of Messrs. John Scott & Sons is allowed to be the most complete in Britain, excepting those which belong to the crown. A great number of vessels have been launched from this yard, and amongst others the Caledonian, of 650 tons, being the largest ship ever built in Scotland. The building yard of Messrs. Robert Steele & Co., is also an extensive one. From it was launched, in 1826, the United Kingdom, the largest and most splendid steam vessel that had then been built in this country. The other building yards of Greenock are those of Messrs. R. & A. Carsewell, Messrs. William Simons & Co., and Messrs. M'Millan and Hunter. Small-boat building forms a separate branch of carpentry in Greenock, and those of Mr Thomas Nicol have been long famed for their excellence.

Sugar-refining forms another prominent branch of the manufacture of Greenock. There are eight sugar houses at present in operation—three others have, in the mean time, given up working. For this business the situation of the place is favourable, as the raw material is brought here direct from the colonies, without the drawback of land carriage.

There is another business carried on here on an extensive scale, but which has no connexion with the shipping of the town. This is the manufacture of straw hats from native straw, which are said to equal those of Leghorn. The straw is sent to Orkney, where it is plaited; then returned to Greenock, and made into hats. About 2000 females are employed in Orkney plaiting the straw, and from 200 to 300 in Greenock, forming the hats. Messrs. James and Andrew Muir have received premiums from the Society of Arts, and the Highland Society of Scotland, for establishing this ingenious manufacture, which furnishes an appropriate employment to a large portion of the female community.

Besides the above, Greenock possesses two large foundries, from which machinery of all descriptions is exported to every quarter of the world; two chain-cable works; three extensive, and two smaller, rope works; two sail-cloth manufactories; one large flax spinning mill; an extensive paper mill; several soap and candle works; four large grain mills; a flint mill; a flint glass manufactory; a bottle work; a distillery; two large breweries, and several tanworks.

Of late years, a series of waterfalls have been formed along the heights behind the town, which, from their excellent adaptation for driving mills, promise to increase materially the manufactories of Greenock. The town having long suffered from a deficiency of water for household purposes, it occurred to Mr Thom of Rothesay, that by turning the source of a rivulet called the Shaws water, and other streams in the hills behind, and constructing reservoirs and aqueducts, Greenock might not only be plentifully supplied with water, but a power might be obtained to impel machinery to an extent equal to what is impelled by steam in and about Glasgow. He accordingly, in 1824, drew out a report to that purpose, in which the scheme appeared so practicable, that a company was immediately formed, and incorporated by act of parliament, under the name of "The Shaws Water Company," with a capital of £31,000. The work was commenced by forming an artificial lake or reservoir in the bosom of the hills, capable of containing, along with smaller basins, 300,000,000 cubical feet of water, into which the Shaws water and other small mountain streams were made to discharge themselves, and constructing aqueducts to conduct the water towards the town in such a way as, upon a descent of 512 feet, should impel a variety of water mills, yielding a power equal to that of 8234 horses working eight hours a day. The scheme succeeded even beyond expectation; for not only is the town now liberally supplied with water, but already a paper mill, a flax spinning mill, a foundry, a charcoal work, two extensive flour mills, a large sugar house, a rice mill, and a woollen factory, are set agoing by this ingenious contrivance. The supply of the water, too, is regulated with precision by various self-acting sluices, invented by Mr Thom. As this magnificent yet simple work forms a highly interesting example of ingenuity beneficially applied, and, if more generally known, may be introduced in other places, whether of the new or old continent, with similar success, we make no apology for extracting from the Greenock Advertiser newspaper, the following account of its first opening on the 16th of April, 1827:

"The 16th of April, 1827, will long remain a memorable day in the annals of Greenock. Rapid as was its advance from the obscurity of a fishing village to the consideration which belongs to the first seaport in Scotland, we trust it is destined from this day to exhibit a still more rapid progress as a manufacturing town, for which it has acquired facilities it did not before possess—and, we may

sold, which no place in the United Kingdom now possesses in the same eminent degree.

"To form an immense artificial lake, in the bosom of the neighbouring alpine regions, and lead its liquid treasure along the mountain summits, at an elevation of more than 500 feet above the level of the sea, till, in the immediate vicinity of the town, it should be made to pour down a resistless torrent, in successive falls, for the impelling of machinery to a vast extent—this, in a few words, was the magnificent conception of Mr Thom; and never, probably, did the first trial of so novel and extensive an undertaking demonstrate its capability and entire adaptation to its purpose, to excite such unalloyed and universal gratification.

"By the activity of Mr James Thom, the engineer to the Shaws Water Company, all the preparations were completed, to admit of the water flowing from the great reservoir the whole length of the aqueduct, a distance of six and a half miles; and yesterday, precisely at a quarter to twelve, the sluices were raised by our Chief Magistrate, William Leitch, Esq., who immediately thereafter entered a boat prepared for the purpose, gaily decorated with flags, and was floated along on the first tide of the stream in its new and artificial channel. The spectacle of a vessel skirting the mountain's brow, and tracking the sinuosities of the alpine chain at so great an elevation, seemed the realization of a dream of the wildest fancy, and the course of the boat was followed by crowds of delighted spectators. It arrived at Everton, in the vicinity of the town, exactly at a quarter to three, where it was received with cheers and a salute of cannon. The water was then allowed to flow into the regulating basin for three quarters of an hour. It is at this point that the stream takes its descending course; and a sufficiency of water having been poured into the basin, at half-past three the sluice was opened by Sir Michael Shaw Stewart, and the torrent bounded down each successive fall, and rolled along the alternate levels, with fearful activity. It was at this juncture that the scene became one of the most interesting and animated description. The spectators, who amounted to several thousands, but who had previously been scattered irregularly over a considerable extent of the aqueduct line, now became more condensed, and moved onwards as if in procession, following the march of the stream. In the appearance of the aqueduct a complete change had now taken place: what, a few minutes before, was a dry and unmeaning channel, exhibited now an impetuous torrent; by turns a cascade sending up clouds of spray, and a swift rolling current seeking its unquiet course towards the Clyde, whose ample waters lay far beneath. Arriving at length at one of the lowest falls, on which the new Flour Mills belonging to the Society of Bakers have been erected, the Shaws Water no longer disported itself idly and in vain. The dizzying wheel was set in motion, with the fine machinery of the mills, and added new life to the scene. A discharge of cannon announced this event also. The mills and granary are on an extensive scale, and the former are driven by a water power equal to twenty-eight horses. The machinery, which has been constructed by Mr John Wood, engineer, is remarkably fine, and by competent judges is pronounced inferior to nothing of the kind in Scotland. At half-past four, the Shaws Water, which for ages had discharged itself into the Clyde at Innerkip, now terminated its easterly course in the river above this town.

"In conclusion, we cannot help remarking, as a most singular circumstance, that the birth-place of Watt should have become the theatre for exhibiting the earliest practical demonstrations, on an extensive scale, of a great mechanical power, rivalling the utility of his own; and been the means of adding another name to the bright record of ingenious men, who have proved at once the benefactors of their country and of mankind."

The government of the town, up to the year 1751, was, like other burghs of barony, entirely in the hands of the baron himself; but in that year Sir John Shaw bestowed a charter on the feuars and sub-feuars of the town, empowering them to elect a regular magistracy, consisting of two bailies, a treasurer, and six councillors. Greenock, thus, long before the passing of the Scotch burgh reform bill, enjoyed in some measure the privilege of electing its own rulers, and much of the prosperity of the place may be ascribed to the fostering care with which its magistracy has ever watched over the interests of the community.

Greenock is at present divided into five parishes, called the west, the mid, the east, the north, and south parishes, all of which were originally embraced under the parish of Innerkip. The west parish, which still retains the name of the old parish, comprehends the western part of the town, and the greater part of the country district. The church stands in the midst of an extensive burying ground, close by the shore. In 1798, the stipend of this parish was only £96 in money, and a glebe of six acres, worth £30 yearly. The stipend was afterwards augmented to £111 in money, with thirty-two bolls of meal; and, by an act of parliament in 1801, authorising feu grants of the glebe for building, at an average rent of £100 per acre, the value of the glebe has been raised to £600 a year; and the whole revenue of the clergyman is about £800, with thirty-two bolls of meal yearly, constituting it one of the best livings in the church of Scotland. The mid parish is confined entirely to the town. Its church, with steeple attached, an elegant building, was erected in 1759, and stands in the middle of the square, fronting the mid quay. The stipend of this parish is £295. The east parish church, a plain building, was originally a chapel of ease, but converted into a parish church in 1793. The stipend attached to it is £200 annually. Besides these, there are several dissenting churches.

Greenock is beautifully situated. Immediately behind it rises a picturesque range of hills, about eight hundred feet in height, and before it spreads the beautiful firth of Clyde, bounded by the wild and sublime scenery of the Highlands. The town contains several elegant streets, though the older districts of it are crowded and irregular. Of its public structures, the Custom House is the most beautiful, being a fine specimen of Grecian architecture. It stands on the front of the harbour, and was erected in 1819, at an expense of £30,000. The Tontine, situated in Cathcart street, is an elegant building, erected in 1801, at an expense of £10,000. Nearly opposite it are the Exchange Buildings, completed in 1814, at an expense of £7000, and which contain two spacious assembly rooms and a coffee room. The Greenock Bank, instituted in 1785, occupies a part of this building, and near it stands a small theatre, built by Stephen Kemble. The Town Hall and public offices are situated in Hamilton Street, and were erected in 1766, after a plan by the celebrated James Watt, who was a native of this town. Greenock also possesses an infirmary, erected in 1809; a jail and bridewell, erected in 1810; a new coffee room, erected in 1820; and a gas work, erected in 1828.

The population of Greenock in 1757 was 4000 inhabitants; in 1811, 19,000; in 1821, 22,088; and in 1831, exclusive of seamen, 27,571. Seamen and vessels registered in 1831, 2,319. By the reform bill, Greenock returns one member to the British parliament. Its constituency amounts to 975. See Weir's *History of Greenock*, 1829, 8vo.

GREENWICH; a borough town in Kent, on the southern bank of the Thames, about five miles from London, formerly the seat of a palace in which the kings of England occasionally resided. It was built by Humphrey, duke of Gloucester, and called *Placentia*. Henry VII. enlarged it, and his son, Henry VIII., finished it. Queen Elizabeth and "bloody" queen Mary were born within its walls, and Edward VI. died here. King Charles II. took the greater part down, and commenced a new palace on its site, a part of which forms one wing of the present hospital. This consists, at present, of four extensive piles of building or wings, entirely detached from each other, but so connected by the conformity of their dimensions, their figures, and the general arrangement of their decorations, as to form a complete whole. The principal front, which is nearly all of Portland stone, faces the Thames on the north. The two northern wings are separated by a square of 270 feet wide; the two southern are connected by two

lonnades, 115 feet asunder, supported by 300 able columns and pilasters; while a spacious enue through the hospital from the town, divides se squares from each other, and thus also divides e whole of the northern half of the building from e whole of the southern. In the middle of the st square is a statue of George II., sculptured by sbrach. Extending 865 feet along the front, the erveming bank of the Thames is formed into a race, with a double flight of steps to the river in middle. The pensioners to be received into the spital must be aged and maimed seamen of the navy, of the merchant service, if wounded in battle, and rines and foreigners who have served two years the navy. The total expense of the establishment above £70,000 per annum, which is appropriated the support of about 3000 seamen on the premises, d 5400 out-pensioners. Connected with this tablishment is a naval asylum, designed for the pport and education of the orphan children of sea-en. On a rising ground in the park, 160 feet above w water mark, and commanding a rich and varied rospect, stands the royal observatory, celebrated by e great names with which it is associated. The rivate buildings are handsome, but the streets are general irregular. Population of the borough in 31, 60,917. Previous to the passing of the reform t, Greenwich was only a market-town, but it was en created a borough, and now sends two members parliament. The longitude in English geography calculated from the meridian of Greenwich. Lat. 1° 29' N.

GREFFIER; formerly, in the United Provinces, e first secretary of state; in France, the clerk of a ourt of justice. For the etymology of the word, see *Court*.

GREGOIRE, HENRY, count, former bishop of Blois, whose civil, literary, and religious career was haracterised by love of liberty, active philanthropy, nflexible integrity, and ardent piety. He was born t Vetro in 1760; he was a member of the states-eneral in 1789, and was one of the five ecclesiastics resent at the session of the Tennis Court. In the onstituent assembly, he was distinguished for the oldness of his opinions on civil and religious liberty, nd for the eloquence by which he supported them. At this early period, he began his efforts in favour of he Jews and blacks, which place him high among he friends of humanity. He was the first among the lergy to take the constitutional oath. In the con-ention, Grégoire advocated the abolition of royalty September, 1792), but endeavoured, at the same ime, to save the king, by proposing that the punish-ment of death should be abolished. His absence on a nission with three members of the convention, pre-ented him from voting on the trial of the king; but he refused to sign the letter of his three colleagues to that body, demanding the sentence of death. In the reign of terror, when the bishop of Paris abdi-cated his dignity, and several of the clergy abjured the Christian religion in the presence of the conven-tion, the bishop of Blois had the courage to resist the storm of invectives from the tribunes, and threats from the Mountain. "Are sacrifices demanded for the country?" he said; "I am accustomed to make them. Are the revenues of my bishopric required? I abandon them without regret. Is religion the sub-ject of your deliberations? It is an affair beyond your jurisdiction. I demand the freedom of religi-ous worship." At a later period, we find him in the senate, forming one of the minority of five, opposing the accession of the first consul to the throne, and alone in opposing the obsequious address of that body to the new sovereign. In 1814, he signed the act deposing the emperor, and, in 1815, refused, as mem-ber of the institute, to sign the *additional act*. On the restoration of the Bourbons, he was excluded from the institute, and from his episcopal see; and, on his election to the chamber of deputies in 1819, he was excluded from a seat by the royalist majority. After this unmerited indignity, he devoted himself to his literary and benevolent labours. He died at Paris in May, 1831. His works are numerous.

GREGORIAN CALENDAR. See *Calendar*.

GREGORY, bishop of Neocæsarea, in which place he was born, of pagan parents, was called, on ac-count of the many miracles which he is said to have performed, *Thaumaturgus* (the worker of miracles). He was distinguished for his eloquence, and was a pupil of Origen. He died about 270. His works were published (in Greek and Latin) by Vossius, with scholia, Mayence, 1604, 4to.

GREGORY OF NAZIANZEN, a celebrated teacher of the Greek church, born about 328, at Ari-anso, near Nasiansum, in Cappadocia, was at first pres-byter and afterwards bishop of Nasiansum. He was the intimate friend of Basil, and a violent enemy of the Arians. Among his pupils in eloquence, Jerome was the most distinguished. He died about 390, and left many works, of which a complete edition (Greek and Latin) was published at Paris, 1609, two vols. folio.

GREGORY OF TOURS (his proper name was *George Florentinus*) was born in Auvergne (539), made bishop of Tours in 573, showed great firmness in the dreadful times of Chilperic and Fredegonde (q. v.), and died Nov. 27, 593. Besides his eight books on the virtues and miracles of the saints, he left *Historiæ Eccles. Francorum Libri X.*, which he brought down to the year 591, and which, notwith-standing its marvellous tales and its want of method, has much interest, as being the only historical work of the time.

GREGORY I., pope; called also the *Great*. He was born at Rome, of a noble family, about 544; and, having received an education suitable to his rank, he became a member of the senate, and filled other employments in the state. Italy was then sub-ject to the emperors of the East, and Justin II. ap-pointed him to the important post of prefect or gov-ernor of Rome; which, after having held it for some time with great reputation, he resigned. The death of his father put him in possession of great wealth, which he expended in the foundation of monasteries and charitable institutions. Disgusted with the world, he took the monastic vows himself, and be-came a member of one of his own establishments. Pope Pelagius II. sent him on an embassy to Con-stantinople, and made him papal secretary after his return to Rome. On the death of pope Pelagius, in 590, he was chosen his successor. He displayed great zeal for the conversion of heretics, the advance-ment of monachism, and the rigid enforcement of ce-libacy among the clergy. His contest for ecclesiasti-cal superiority with John, patriarch of Constantinople, laid the foundation of the schism between the Greek and Latin churches, which has subsisted to the pre-sent day. The conversion of the Anglo-Saxons to Christianity was a project honourable to his zeal and abilities. (See *Augustin, St.*) He died in March, 604. The works ascribed to this pope are very nu-merous, and have been frequently published. The most complete edition is that of the Benedictines of St Maur (Paris, 1705, four vols. folio), under the superintendence of father Denis de St Martha, who, in 1697, published a life of St Gregory the Great. His genuine writings consist of a treatise on the Pas-toral Duty, Letters, Scripture Commentaries, &c.

GREGORY of NYSSA; born at Nyssa, in Cap-padocia, younger brother of Basil the Great, celebrat-

ed as an ardent defender of the Nicene creed, and also for his eloquence. He died in his native city, of which he was bishop, some time after 394. Editions of his works were published at Paris in 1573 and 1606, and 1615 and 1638 (3 vols. folio).

GREGORY VII. (Hildebrand). The year and the place of the birth of this great pope are uncertain. Some accounts say that he was born at Sienna, others at Soana, in Tuscany; others still, at Rome. It is, however, certain, that he lived at Rome when a child, and went to France when a young man, where he became connected with the monastery at Cluny, and returned to Rome in 1045. His history becomes more known after the time of his return to the monastery of Cluny, where Leo IX. saw him on his journey through France. He returned with this pope to Rome, and from that time, although in the back ground, he played an important part; and by the influence which great minds always exercise over ordinary men, he directed the measures of Leo and several following popes. On the death of Alexander II. (1073), cardinal Hildebrand was raised to the papal chair. He now laboured with the greatest energy to accomplish those plans for which he had prepared the way by the measures which the preceding popes had adopted through his influence. It was the object of his ambition not only to place the whole ecclesiastical power in the hands of the pope, but to make the church entirely independent of the temporal power. He wished to found a theocracy, in which the pope, the vicar of God, should be the sovereign ruler, in political as well as ecclesiastical matters—a bold idea, which he probably conceived in consequence of the wretched state of all civil authority. He therefore prohibited the marriage of priests, and abolished lay investiture, the only remaining source of the authority of princes over the clergy of their dominions. In 1074, he issued his edicts against simony and the marriage of priests, and, in 1075, an edict forbidding the clergy, under penalty of forfeiting their offices, from receiving the investiture of any ecclesiastical dignity from the hands of a layman, and, at the same time, forbidding the laity, under penalty of excommunication, to attempt the exercise of the investiture of the clergy. The emperor Henry IV. refused to obey this decree, and Gregory took advantage of the discontent excited by the despotic character and youthful levity of the emperor, among the people and princes of Germany, to advance his own purposes. In 1075, he deposed several German bishops, who had bought their offices of the emperor, and excommunicated five imperial counsellors, who were concerned in this transaction; and when the emperor persisted in retaining the counsellors, and supporting the bishops, the pope, in 1076, issued a new decree, summoning the emperor before a council at Rome, to defend himself against the charges brought against him. Henry IV. then caused a sentence of deposition to be passed against the pope, by a council assembled at Worms. The pope, in return, excommunicated the emperor, and released all his subjects and vassals from their oath of allegiance. The emperor soon found all Upper Germany in opposition to him, at the very moment that the Saxons in Lower Germany renewed the war against him; and when the princes assembled at Oppenheim, came to the determination of proceeding to the election of another emperor, he yielded, almost unconditionally; he was obliged to consent to acknowledge the pope, whom they were to invite into the empire, as his judge, to abandon his excommunicated counsellors, and to consider himself as suspended from the government. To prevent being deposed by the pope, Henry IV. (q. v.) hastened to Italy, where he submitted, at Canossa (1077), to a humiliating penance, and received absolution. In the mean time, his friends again assembled round him, and he defeated his rival, Rodolph of Suabia. He then caused the pope to be deposed by the council of Brixen, and an anti-pope, Clement III., to be elected in 1080, after which he hastened to Rome, and placed the new pope on the throne. Gregory now passed three years as a prisoner in the castle of St Angelo, but could never be induced to compromise the rights of the church. He was finally liberated by Robert Guiscard, a celebrated Norman prince, whom he had made duke of Apulia; but the Romans compelled him to quit the city, because it had been plundered by the soldiers of Robert. Gregory then retired to Salerno, under the protection of the Norman prince, where he died, in 1085. By the celibacy (q. v.) of the clergy, Gregory aimed at increasing their sanctity, and making them entirely independent of family connexions. The same measure prevented the possessions of the church from becoming mere feudal dependencies on temporal princes, which would have been the natural course, if the clergy had become parents, and, of course, desirous of transmitting the estates which they enjoyed to their children. Matilda, countess of Tuscany, whom he induced to bequeath her almost regal possessions to the papal see, was his chief support. Most Protestant writers have accused him of insatiable ambition; but the impartial historian, who considers the spirit of his whole life, studies his letters, and observes that his severity towards himself was as great as towards others, will judge differently. Gregory must be considered as a great spiritual conqueror, who rendered the clergy independent of the temporal power, and secured their safety amid the scenes of violence with which Europe was filled; thereby rendering them capable of advancing the progress of civilisation, which was in great danger of being swallowed up in barbarism. The papal power, which he rendered independent of the imperial, was, for ages, the great bulwark of order amid the turbulence of the semi-civilised people of Europe. In capaciousness and boldness of mind, he may be compared to Napoleon. His system undoubtedly became unreasonable, like all other systems, to the wants of a more advanced age; and the good of mankind, in the progress of time, required that the temporal power should become again independent of the Roman see.

GREGORY, patriarch of the Eastern Greek church, a victim of the fanatical policy of the Porte, was born in 1739, and educated in Dimitsana, a town in Arcadia in the Morea. He studied in several monasteries, finally on mount Athos (q. v.), lived as a hermit, was made archbishop at Smyrna, and, in 1795, patriarch of Constantinople. When the French occupied Egypt, in 1798, the Greeks were accused of treating secretly with them, and the rabble demanded the head of the patriarch, who, in fact, by his pastoral letters, dissuaded the Greeks from taking up arms for the French. Selim III. himself declared Gregory to be innocent, but banished him for security to mount Athos. He was soon after restored to his former dignity. But in 1806, when the progress of the Russian arms, and the appearance of a British fleet before Constantinople, renewed the fury of the Mussulmans against the Greeks, and the life of the patriarch was threatened, although his exhortations had again prevented the Greeks from any hostile movements, Selim banished him a second time to mount Athos. After an interval, Gregory was a third time appointed patriarch. The apostolic virtues of love, charity, and humility, gained this prelate universal esteem; he lived very simply, was strict with regard to the morals of the Greek clergy, and spent

his income for benevolent objects, bestowing charity on the poor, without regard to the religion which they professed, promoting schools, the art of printing in Constantinople, and the publication of useful books. In particular, he promoted the establishment of schools of mutual instruction in Scio, Patmos, at Smyrna, Athens, Sparta (Misitra), and in Candia. His sermons and pastoral letters manifest his piety, tolerance, and knowledge of mankind. He translated the epistles of the apostle Paul into modern Greek with a commentary. He constantly exhorted his brethren to obedience and patient submission to the will of God. But, in 1821, when the Greek insurrection broke out in the Morea, his native country, he became an object of suspicion to the Porte, and nothing but the hope of preventing the massacre of all the Greeks at Constantinople, which had already been determined upon, could induce him to excommunicate (21st March, 1821) Ypsilanti, Sussо, and all the insurgents, as the divan demanded, with threats. At the same time, he issued a pastoral letter to the clergy, declaring submission to the Porte to be the duty of the faithful. After the execution of the prince Morousi, the grand-visier confided to Gregory the custody of the family of this prince. Without his knowledge, but perhaps by the assistance of a priest in the patriarchal palace, the family escaped on board a vessel, which, by the aid of the Russian ambassador, took them to Odessa. The old man did not doubt that this would decide his fate. He immediately went to the grand-visier, the furious Benderli Ali Pacha, to inform him of the event. The visier laid all the blame on him; but he was neither imprisoned nor subjected to trial. The grand-visier had determined to intimidate the Greeks by an act of violence yet unprecedented in Turkish history. They had already been exposed, for several weeks, to the fanatical rabble of Constantinople, which prevented the greater part of them from attending church on the first day of the Easter festival (April 22). The patriarch read the high mass surrounded by his bishops, with the usual ceremonies; but, as he left the church, the janisaries surrounded him, and seized the bishops. A natural respect prevented them from laying hands on the venerable old man; but their commander, having reminded them of the order of the grand-visier, they seized the patriarch, in his robes of office, and hanged him before the principal gate of the church. Three bishops and eight priests of the patriarchate, shared the same fate; they were all hanged before the gates of the churches or the palace, in their canonical robes. The body was not cut down till the 24th, when it was given up to the lowest of the Jews, who dragged it through the streets, and threw it into the sea; but, being prevailed upon by a sum of money, they did not sink it, so that some Greek sailors recovered it during the night, and carried it to Odessa. Here, with the permission of the emperor, the martyrdom of the patriarch was celebrated by the Russian archimandrite, Theophilus, with a magnificent funeral. This act of barbarity towards an old man of eighty years, was followed by the destruction of many churches, and the most savage treatment of the Greeks in Constantinople; but instead of exciting fear, it had the opposite effect. The enthusiasm of the Greeks for their religion and freedom was increased, the war was carried on with more animosity, and reconciliation became more difficult, and, after some additional atrocities, impossible. See *Greece, Revolution of Modern*.

GREGORY, James, a mathematician and philosopher, the inventor of the reflecting telescope, was born at Aberdeen in 1638, and received his education at the Marischal college. In 1663, he published *Optica promota, seu abdita Radiorum reflexorum et refractorum Mysteria, Geometrice enucleata* (4to), explaining the idea of the telescope which bears his name; and, in 1664, visited London for the purpose of perfecting the mechanical construction of the instrument. Disappointed by the difficulty of getting a speculum ground and polished of a proper figure, he suspended his design, and set off on a tour to Italy. He staid some time at Padua, where he published, in 1667, a treatise on the Quadrature of the Circle and Hyperbola (reprinted at Venice, in 1668, with additions). On his return to England, he was chosen a fellow of the royal society, whose Transactions he enriched by some valuable papers. He was chosen professor of mathematics in the University of St Andrew's, and, in 1674, was invited to fill the mathematical chair at Edinburgh, whither he removed; but, in October, 1675, while pointing out to his pupils the satellites of Jupiter, he was struck with a total blindness, and died a few days after, in the thirty-seventh year of his age.

GREGORY, David; nephew of the preceding, and the heir of his splendid talents, and emulator of his fame. The subject of this article was educated at Edinburgh, where, in 1684, he was elected professor of mathematics; and the same year he published a mathematical treatise from his uncle's papers, with important additions of his own. His lectures first introduced into the schools the Newtonian philosophy. In 1691, he was chosen professor of astronomy at Oxford, though he had the celebrated Halley for his competitor—a circumstance which laid the foundation of a friendly intimacy between these mathematicians. In 1695, he published at Oxford, *Catoptricæ et Dioptricæ Sphericæ Elementa* (8vo.), in which he considers those branches of optics chiefly as respects the construction of telescopes, particularly those of his uncle and sir Isaac Newton. In 1697, he gave the first demonstration of the properties of the Catenarian Curve; and in 1702 appeared his most celebrated production, *Astronomiæ Physicæ et Geometricæ Elementa* (folio). The object of this work is to explain Newton's geometry of centripetal forces, as far as his discoveries are founded on it; and to exhibit in a more familiar form the astronomical part of the *Principia*. In 1703, he published an edition of the books of Euclid, in Greek and Latin; and he afterwards engaged with doctor Halley in editing the Conics of Apollonius. He died Oct. 10, 1710.

GREIFSWALDE; a town in Hither Pomerania, belonging, since the war of 1815, to Prussia. Lat. 54° 4′ 36″ N.; lon. 13° 33′ 23″ E. Population in 1822, 8080. From 1648 to 1815, it belonged to Sweden, except that from 1715 to 1721 it was in the possession of Denmark. In 1455, Wratislaus IX., duke of Pomerania, founded the university here. It does not flourish like the other Prussian universities, and contains only 130 students; for the government does not see fit to support it as they do the others, and, at the same time, does not wish to break up so ancient an establishment. It is one of the few German universities which have a right to assist in choosing the professors. The university of Greifswalde nominates new professors, and the king appoints. The town is well built.

GRENADA. See *Granada*.

GRENADA, New; formerly a viceroyalty of South America, called the *New Kingdom of Grenada*, now forming the greater part of the republic of Colombia; bounded N. by the Caribbean sea and Guatimala, E. by Venezuela and Guiana, S. by the Amazon and Peru, and W. by the Pacific ocean. Lat. 6° S. to 12° N.; 1200 miles in length, and 276 in mean

breadth. This country, together with Venezuela, was formerly called *Terra Firma*. It was formerly divided into three audiences, Panama, Santa Fé, and Quito, and subdivided into twenty-four provinces; but a new division has been made since New Grenada and Venezuela have been united, and formed into a republic. There are universities at Santa Fé de Bogota, Quito, and Popayan. The principal rivers are the Magdalena, Cauca, Apure, Meta, Putumayo, and Caqueta. New Grenada abounds in the most sublime mountain scenery. The great chain of the Andes traverses this country from north to south, and within the audience of Quito are found the lofty summits of Chimboraso, Pinchinca, Cotopaxi, &c. The mountains of this country are extremely rich in gold and silver, and have also mines of platina, copper, lead, and emeralds. The value of gold and silver produced annually is stated at £650,000 sterling. There are two mints, at Santa Fé and Popayan. For further information, see *Colombia*, and *Venezuela*.

GRENADE; a hollow sphere of iron, differing from a bomb by the smallness of its diameter. The smallest grenades, or those thrown by the hand, are called *hand grenades;* they are from 2½ to 3½ inches in diameter. The fusee is calculated to burn from twelve to fifteen seconds, so that time is allowed for throwing them. The short distance to which they can be thrown, and the danger of accidents, have occasioned them to be disused. The small grenades are now only employed for what are called, in French, *perdreaux*, several of them being fastened to a board, and thrown from mortars. The grenades in general use are thrown from howitzers, and are of very different sizes, from 2 to 20 pounds weight. They are chiefly calculated to act against cavalry and distant columns, where they may do great harm. In the battle of Wagram, one grenade killed and wounded forty men. As the utility of large grenades at sea is acknowledged, but objections exist to the use of howitzers of large calibre, the Americans introduced the use of oval grenades in 1815, which may be fired from 12 and 24 pounders. The British imitated this, and made the grenades with a spiral thread on the surface, that the opposition of the air might give them a rotatory motion, and thus more certainty of direction. Grenades are often thrown from cannons. During the siege of Gibraltar, they were thrown 3000 yards upon the Spanish works.

GRENADIER; originally a soldier destined to throw the hand grenades. (See *Grenade.*) Soldiers of long service and acknowledged bravery were selected for this service, so that they soon formed a kind of *élite*. They were the first in the assaults. When hand grenades went out of use, the name *grenadier* was preserved, and the troops so called generally formed one battalion of a regiment, distinguished by the height of the men and a particular dress, as, for instance, the high bear-skin cap. This continues to be the case in most armies. In the Russian and Prussian armies, the grenadiers form whole regiments belonging to *corps d'armée* of the guards. With the British and French, the grenadier company is the first of each battalion. The dragoons among the French also had grenadier companies, which were afterwards united under the name of *grenadiers à cheval*, a kind of cavalry between cuirassiers and dragoons, and belonging to the guards; and the dragoons again had *compagnies d'élites*.

GRENOBLE; an old city, situated in the former province of Dauphiny, now capital of the department of the Isère, 113 leagues S. E. from Paris; lat. N. 45° 11′ 42″; long. E. 5° 43′ 57″; with 22,149 inhabitants. It is the see of the suffragan bishop of Lyons, the seat of several tribunals, and the headquarters of a military division. Grenoble is a fortified place. An old fortress called the *Bastile*, on a hill of the same name, commands the whole city. It contains several noble edifices; among others, the palace of the last constable of France, Lesdiguieres. Here is also a law school, a royal college, and a public library with 55,000 volumes and valuable manuscripts. Grenoble is the centre of a great manufacture of gloves, and contains tanneries and important distilleries. Commerce is facilitated by the Isère. A number of distinguished men have been natives of this place; for instance, Bayard, Condillac, Mably, Vaucanson, &c. The bridge over the Drac is a single arch 120 feet high, and of 140 feet span. Grenoble is a very old place, and of Gallic origin. In the time of the Allobroges, it was called *Cularo*, which name it retained under the Romans, until Gratian enlarged it, and called it *Gratianopolis*. Remains of antiquity which have been discovered here leave no doubt respecting its origin. It has been the see of a bishop since the fourth century. Grenoble was the first city of importance which opened her gates to Napoleon, on his return from Elba. The emperor, as his handful of troops were preparing for the attack on the garrison of Grenoble, advanced alone, and, uncovering his breast, said aloud to the soldiers, *S'il est parmi vous, s'il en est un seul qui veuille tuer son général, son empereur, il le peut, le voici*. He was answered by cries of *Vive l'empereur*, and joined by the soldiers.

GRESHAM, Sir Thomas, a merchant of London, was born in 1519, and educated at Gonville hall, in Cambridge. His father was agent of the king's money affairs at Antwerp; and, his successor having brought them into a bad condition, young Gresham was sent over, in 1552, to retrieve them. He acquitted himself so well, that in two years he paid off a heavy loan, and raised the king's credit considerably. On the accession of Elisabeth, he was deprived of his office; but it was soon restored to him, with that of queen's merchant, and he was also knighted. In 1566, he planned and erected a *burse* or exchange for the merchants of London, in imitation of that of Antwerp. In 1570, queen Elisabeth, visiting the new building, solemnly proclaimed it the *royal exchange;* which name its successor, since the fire of London, still continues to bear. The troubles in the Low Countries interrupting the loans from Antwerp to the crown, Sir Thomas induced the moneyed men in London to join in a small loan, which was the commencement of the great advances since made from the same body. He founded a college in London, notwithstanding the opposition of the university of Cambridge, and devised his house for habitations and lecture-rooms for seven professors, on the seven liberal sciences, who were to receive a salary out of the revenues of the royal exchange. Gresham college has since been converted into the modern general excise-office; but the places are still continued, with a double salary for the loss of the apartments, and the lectures are now given in the royal exchange. He died suddenly, in 1579, at the age of sixty.

GRESSET, Jean Baptiste Louis, an agreeable French poet, born at Amiens, 1709, entered the order of the Jesuits in his sixteenth year, and left it ten years afterwards, on account of the attention excited by his poem *Ver-Vert*. In Paris he had the good fortune to increase this reputation; and, in 1748, he was elected a member of the academy. He lived at Amiens, where he filled an office in the financial department, and where he married a rich lady. After the death of Louis XV., he visited Paris, and was chosen to congratulate Louis XVI., in the name of the academy, on his accession to the throne. The court and the city were both desirous of beholding

the man who had been so successful in delineating them. But the expectation which had been formed from his earlier works, was far from being answered by his academical discourse in reply to the inaugural address of Suard, and in which he painted the follies of the capital. His pictures were distorted and exaggerated. He died soon after, in 1777, without leaving any children. His agreeable manners, and his integrity of character, gained him distinguished friends. Louis XVI. granted him, in 1775, letters of nobility. His *Ver-Vert* is distinguished for wit, vivacity, and interest, and its value appears the more remarkable from the poverty of the subject. Gresset has written much that is good, and some things merely passable.

GRESSON; the loftiest summit of the Vosges, 4002 feet high.

GRETNA GREEN, or GRAITNEY; a village and parish of Scotland, in Dumfries-shire, on the Solway firth, eight miles north of Carlisle. It is the first stage in Scotland from England, and has for more than seventy years been famous as the place of celebration of the marriages of fugitive lovers from England. According to the Scottish law, it is only necessary for a couple to declare, before a justice of peace, that they are unmarried, and wish to be married, in order to conclude a lawful marriage. It has been calculated that about 300 marriages take place annually here and at the neighbouring village of Springfield. The fees vary from one to forty guineas. A blacksmith was a long time the justice of peace.

GRETRY, ANDRE ERNEST MODESTE, a French composer of music, was born at Liege, 1741, and showed as early as his fourth year his sensibility to musical rhythm. At this age, being left one day alone, the noise of water boiling in an iron pot excited his attention; he began to dance to the sound, which resembled that of a drum. He then wished to discover the origin of this bubbling in the vessel, and he overturned it into a hot coal fire. The explosion was so quick, that, rendered senseless by the steam and smoke, he fell to the ground much burnt. This accident brought on a long illness, and weakened his eyes for life. In 1759, Grétry went to Rome to perfect himself in music. Having, while at Rome, exhibited some Italian scenes and symphonies, he was engaged by the manager of the theatre, Alberti, to set to music two *intermezzi*. His first effort met with great success. The praise which he obtained from Piccini was the most flattering to him. Being well received and esteemed in the capital of Italy, Grétry pursued his studies there, until he became desirous of making himself known at Paris. On his way to France, he stopped at Geneva, and set to music the opera Isabella and Gertrude, which was brought out at Paris. The success of this production determined him to go to Paris, to find a theatre and performers worthy of him. Here he was obliged, for two years, to struggle against numerous difficulties, before he obtained from Marmontel, the Huron, the text and music of which were both written in six weeks. The piece was performed in 1769, with complete success. The *Lucile*, a comedy in one act, which appeared soon after, was received with still greater applause. He now devoted himself exclusively to the theatre, and composed 40 operas, of which *Le Tableau parlant, Zémire et Azor, L'Ami de la Maison, La fausse Magie, Le Jugement de Midas, L'Amant Jaloux, Les Evénemens imprévus, Colinette à la Cour, La Caravane, Raoul, Richard Cœur-de-Lion, Anacréon chez Policrate*, are still played with applause. Grétry, like Pergolesi, took declamation as the guide of musical expression. He was inferior to Gluck in depth, and he could never arrive at the fulness of Mozart. In 1790, he published his *Mémoires ou Essais sur la Musique*. The first volume contains an account of the musical career of the author. He wrote *La Vérité* and *Reflexions d'un Solitaire*. He died in 1813, at Erménonville, in Rousseau's hermitage.

GREVILLE, FULK (lord Brooke); an accomplished courtier and ingenious writer, and a great encourager of learning and learned men. He was born in 1544, at Beauchamp court, Warwickshire, the family seat, then in the possession of his father, sir Fulk Greville. He entered Trinity college, Cambridge, which he afterwards quitted for Oxford; and having made the tour of Europe, presented himself at court, where he soon rose high in the favour of Elisabeth. James also distinguished him by his favour; but the jealousy of Cecil induced Greville to retire from public life, till the death of that statesman restored him to the court. He now rose rapidly, filling in succession the posts of under treasurer and chancellor of the exchequer, and, in 1620, obtained a barony. Under Charles I., he continued to enjoy the royal countenance till the 30th of September, 1628, when, conversing with an old servant of the family, respecting certain dispositions in his will, the latter, considering his legacy disproportioned to his services, replied to him with great insolence, and, on receiving a reprimand, stabbed him in the back, and he expired immediately; the assassin instantly committed suicide with the same weapon. Lord Brooke was the founder of an historical lecture at Cambridge, and enjoyed the friendship of sir Philip Sidney, Spenser, Jonson, Shakspeare, and most of the master spirits of the age. The bent of his own genius evidently led him to the study of poetry and history. An octavo volume of his miscellaneous writings was printed in 1670, and there is also extant a life of his friend Sidney, by his hand. The envy of Cecil, who denied him access to the necessary records, prevented his carrying into execution an intention he had formed of writing a history of the wars of the Roses.

GREY, LADY JANE; a young and accomplished female of royal descent, whose disastrous fate, as the victim of an unprincipled relative's ambitious projects, has created an extraordinary interest in her favour. She was the daughter of Henry Grey, marquis of Dorset, afterwards duke of Suffolk, by the lady Frances, daughter of Charles Brandon, duke of Suffolk, and Mary, younger sister of Henry VIII., in whose reign lady Jane was born, according to the common account, in 1537. She displayed much precocity of talent; and to the usual accomplishments of females, she added an acquaintance with the learned languages, as well as French and Italian. Roger Ascham has related, that, on making a visit to Bradgate hall, he found lady Jane, then a girl of fourteen, engaged in perusing Plato's Dialogue on the Immortality of the Soul, in the original Greek, while the rest of the family were hunting in the park. She owed her early proficiency in literature, in some measure, to her learned tutor, Aylmer, afterwards bishop of London; and from him she imbibed an attachment to Protestantism. The Oriental as well as the classical languages are said to have been familiar to her, and she is represented as having been altogether a young person of uncommon genius and acquirements. But the latter are less singular than might be supposed by those who do not take into account the general taste for the cultivation of Greek and Roman lore, which prevailed among both sexes for some time after the revival of literature in Europe. Lady Jane Grey was a woman of talents, but not a prodigy; and Mrs Roper, the interesting daughter of Sir Thomas More, with lady Burleigh and her learned sisters, may be adduced as rivals in erudition of the subject of this article. The literary accom-

plishments of this unfortunate lady, however, do less honour to her memory than the spirit with which she bore the annihilation of her prospects of sovereignty, and the disgrace and ruin of the dearest object of her affections. The tale of her elevation and catastrophe has been often related, and has furnished a subject for dramatic composition. The most material circumstances are her marriage with lord Guilford Dudley, fourth son of the duke of Northumberland, in May 1553; which, though it originated in the ambitious projects of her father-in-law, was a union of affection. The duke's plan was, to reign in the name of his near relation, in whose favour he persuaded king Edward VI., on his death-bed, to settle the succession to the crown. On the decease of the king, lady Jane had the good sense to refuse the proffered diadem; but, unfortunately, she afterwards consented to accept it, being influenced by the importunities of her husband. Her pageant reign had lasted but nine days, when Mary, the late king's elder sister, was acknowledged queen; and Jane exchanged a throne for a prison. She and her husband were arraigned, convicted of treason, and sentenced to death; but their doom was suspended, and they might, perhaps, have been allowed to expiate their imprudence by a temporary confinement, but for the ill-advised insurrection under sir Thomas Wyat, in which the duke of Suffolk, lady Jane's father, was weak enough to participate. The suppression of this rebellion was followed by the execution of lady Jane Grey and her husband. Mary suspended the execution of her cousin three days, to afford time for her conversion to the Catholic faith; but the queen's charitable purpose was defeated by the constancy of lady Jane, who defended her opinions against the arguments of the Romish divines sent to reason with her, and prepared herself with firmness for her approaching fate. She was beheaded on Tower-hill, February 12, 1554, her husband having previously suffered the same day. A book, entitled The precious Remains of Lady Jane Grey (4to), was published directly after her execution; and letters and other pieces ascribed to her may be found in Fox's Martyrology.

GREY, Thomas. See *Gray*.

GREYHOUND (*canis Graius*, Linnæus). This variety of the canine race is distinguished by a greater length of muzzle than any other dog, a very low forehead, occasioned by the want of frontal sinuses, short lips, thin and long legs, small muscles, contracted belly, and semipendent ears. There are several sub-varieties described by naturalists, as the Irish greyhound, the Scottish, the Russian, the Italian, and the Turkish, all which, though differing in size and intelligence, possess the general characteristics of the variety. The common greyhound is of a beautiful and delicate formation, and is universally known as the fleetest of this race of animals. We have no information when the name *greyhound* was introduced, the former appellation of *gazehound* being very applicable to a dog which hunts by sight and not by smell. Its derivation is evidently from *Graius*, Grecian. The greyhound has been for many centuries in the highest estimation, and in ancient times was considered as a most valuable present. The ardour and velocity of the greyhound in pursuit of its game, have always been a matter of admiration to sportsmen, and of various opinions as to the difference of speed between a well-bred greyhound and a race-horse. It has, by the best judges, been thought, that upon a flat, the horse would be superior to the dog; but that in a hilly country, the latter would have the advantage. The natural simplicity and peaceable demeanour of the greyhound has sometimes induced a doubt, whether the instinctive sagacity of this particular variety is equal to that of some others of the species; but, from numerous observations, it appears that it possesses this attribute in a high degree. Greyhound pups, during the first seven or eight months, are extremely uncouth, awkward, and disproportioned, after which period they begin to improve in form and sagacity. They reach their full growth at two years. The distinguishing traits of superiority are supposed to consist in a fine, soft, flexible skin, with thin, silky hair, a great length of nose, contracting gradually from the eye to the nostril, a full, clear, and penetrating eye, small ears, erect head, long neck, broad breast, width across the shoulders, roundness in the ribs, back neither too long nor too short, a contracted belly and flank, a great depth from the hips to the hocks of the hind legs, a strong stern, round foot, with open uniform clefts, fore legs straight, and shorter than the hinder. According to the quaint description given in a work printed in 1496, by Wynken de Worde, a greyhound should be

> Headed lyke a snake
> Neckyed lyke a drake,
> Fottyed lyke a catte,
> Tayled lyke a ratte,
> Syded lyke a teme,
> And chyned like a beme.

Greyhounds bred in countries where the ground is chiefly arable, were formerly supposed superior in speed and bottom to those produced in hilly situations; that opinion, however, is completely superseded, and the contrary proved to be the case. If fed with coarse food, greyhounds are peculiarly liable to cutaneous and other affections.

GREYWACKE, or GRAU WACKE, is a name originally applied by Werner to a fragmented or recomposed rock, consisting of mechanically altered portions or fragments of quartz, indurated clay slate and flinty slate, cemented by a basis of clay slate,—the imbedded particles not exceeding a few inches in diameter, and sometimes becoming so minute as to be no longer visible, when the rock was denominated *grau wacke slate*. As this formation came to be examined more extensively in other countries, the term *greywacke* was extended so as to embrace nearly all fragmentary rocks, whose mechanical structure comes within the above description, however diversified the ingredients may be in their nature or dimensions, or whatever may be the nature of the cement, whether siliceous or argillaceous, provided only they are anterior to the new red sandstone and coal formation. The reason of this extension was, that the greywacke of Werner was found to pass by insensible degrees into rocks, which, notwithstanding they were obviously produced by the same causes, and occupied the same relative situations with his rock, were, nevertheless, excluded from coalescing with it by the too limited character of his definition. So much diversity, however, exists among the varieties of this rock, that it has been found convenient to distinguish them by separate names. Thus we have *greywacke slate* when the ingredients are very comminuted, *greywacke* when they are of middling size, *pudding-stone* when they are rounded, *conglomerate* when they are from four or five inches in diameter to the size of a man's head and larger, *gritstone* when the concretions are hard and siliceous and the paste siliceous also, and *old red sandstone* when coloured red by the peroxide of iron. The fragments which compose the rocks of this formation, are evidently the debris of the primary rocks that have been broken down by some powerful catastrophe, and mixed with more recent beds at the period when they were forming. They occupy a place next to the primitive rocks, often in an alternating series with mountain limestone, and beneath that class of rocks denominated *secondary*, between

the formation of which and the greywacke a considerable period must have elapsed, as the fragments of the latter invariably consist of lower rocks, and never of the upper strata. Greywacke but very rarely contains organic remains; but the limestones and slates, with which it alternates, present them in considerable quantity, and such as belong to genera almost exclusively unknown at present, and which never occur in the upper strata. Though the gold of Hungary and Siberia is found in this rock, still it cannot be said to be prolific in metals or other useful minerals. When fine grained, it forms a valuable building stone. It is the material of which the fortifications at Quebec in Lower Canada are chiefly constructed. Greywacke is very extensively distributed in Europe. It forms the eastern declivity of the mountains of Brasil, and abounds throughout the chain of the Alleghanies.

GRIESBACH, JOHN JAMES, first professor of theology at Jena, acquired a permanent reputation by his critical edition of the New Testament, and by the education of several thousand youth. Born at Butzbach in Hesse-Darmstadt, in 1745, he removed, while a child, to Frankfort on the Maine, where his father, a preacher and consistorial counsellor, died in 1777. He received his first instruction at the gymnasium of Frankfort, and removed to the university of Tubingen in 1762. In 1764, he went to Halle, and afterwards spent a year at Leipsic. Ecclesiastical history was the subject of his studies, in which Ernesti, at Leipsic, aided him with books and advice. He next undertook, at Halle, an extensive course of preliminary studies to the criticism of the New Testament and dogmatic history. Having resolved to devote himself altogether to the criticism of the text of the New Testament, he undertook, in 1769, and 1770, a literary journey through Germany, England, Holland, and France. The following winter he devoted, in his native city, to the elaboration of his materials; and, in 1771, appeared as a lecturer in Halle, with such applause, in consequence of his celebrated treatise on the criticisms of Origen on the Gospels, that, two years after, he was appointed professor. He now pursued, with indefatigable industry, his plan of an edition of the New Testament. Having received an appointment to a regular professorship of theology at Jena, he published a synopsis of the Gospels. This was soon followed by the first edition of the whole Testament. Its peculiarity is, that it does not merely consider the accepted or rejected readings, but the different degrees of probability for or against them are determined and represented by intelligible marks in the margin. It is to be lamented that he could not finish, as he had intended, the complete edition, which was begun in 1796, and appeared simultaneously at Halle and London. He was, however, incessantly employed on it till his death (in 1812), and lived to see the superb edition, published by Goschen, finished. Gabler has edited Griesbach's *Opuscula Academica*, Jena, 1824, 2 vols.

GRIFFIN, or GRYPHON (γρυψ); a fabulous monster of antiquity, commonly represented with the body, the feet and claws of a lion, the head and wings of an eagle, the ears of a horse, and, instead of a mane, a comb of fishes' fins: the back was covered with feathers. Ælian says that its back was covered with black feathers, its breast with red, and its wings with white. Ctesias gives him blue and shining neck feathers, the beak of an eagle, and fiery eyes. Later writers add other particulars. According to the book *De Rerum Naturâ*, it is larger than an eagle, has on its fore feet large claws, like those of an eagle, and others on its hind feet, like those of a lion; and it lays an agate in its nest. Drinking cups are made from its talons. The griffin is so strong, says Ctesias, that he conquers all beasts, the lion and elephant only excepted. India was assigned as the native country of the griffins, and it was believed that they built their nests on the mountains; that they could be easily caught and tamed when young, but never when full grown; that they found gold in the mountains, and built their nests of it; or, according to other accounts, that they feared those who sought for gold in the mountains, and defended their young against their attacks. Bottiger, in his *Vasengemälde*, has given much information concerning the origin of this fabulous animal. He maintains that this and similar monsters are merely the creation of Indian tapestry-makers, who, from the most ancient times, employed themselves on strange compositions of mythological beasts. The Greeks, who saw this kind of tapestry at the court of the king of Persia, thought that the animals depicted on it were really inhabitants of India, so rich in wonders, and they spread the report. So much is certain, that the notion of this bird came from Asia into Greece in the train of Bacchus. He was, therefore, the symbol of illumination and wisdom.

GRIMALDI (family); one of the four families of the high nobility in Genoa. The lordship of Monaco (afterwards elevated to a principality) belonged, for more than 600 years (beginning with 980), to the Grimaldi. With the Fiescos, they always played an important part in the history of Genoa, especially in the disputes between the Ghibelines and the Guelfs, to which latter party both families belonged. Large estates in the kingdom of Naples, in France and Italy, increased the influence of the Grimaldi, from whom proceeded several eminent men.

1. *Ranieri Grimaldi* was the first Genoese who conducted the naval forces of the republic beyond the straits of Gibraltar. In the service of Philip the Fair of France, Grimaldi sailed to Zealand in 1304, with sixteen Genoese galleys and twenty French ships under his command. He there defeated and made prisoner the count Guy of Flanders, who commanded the enemy's fleet of eighty sail.

2. *Antonio Grimaldi*, likewise, distinguished himself in the naval service in the first half of the fourteenth century. The Catalonians had committed hostilities against Genoa, which city had been prevented by internal discord from punishing the offence. But when a more favourable moment arrived, Antonio received the command of the fleet, with the commission to devastate the coasts of Catalonia. This commission the Genoese performed but too faithfully. He also defeated an Arragonese fleet of forty-two sail. Twenty-one years after, he suffered such a defeat from the combined Venetian and Catalonian fleets, under the command of Nicolas Pisani, that, of the whole Genoese fleet, only seventeen vessels escaped. This defeat (29th of August, 1353) obliged the Genoese to submit to John Visconti, lord of Milan, who promised them protection against their enemies, the Venetians.

3. *Giovanni Grimaldi* is celebrated for the victory which he gained, May 23, 1431, over the Venetian admiral, Nic. Travisani, on the Po, although Carmagnola, the most distinguished general of his time, was ready to support the Venetians, with a considerable army, on the banks of the river. By an able manœuvre, Grimaldi separated the Venetian fleet from the bank, where the army was stationed (three miles below Cremona), and thus succeeded, not only in utterly defeating the enemy, but in taking twenty-eight galleys and a great number of transports, with immense spoils.

4. *Domenico Grimaldi*, cardinal, archbishop, and vice-legate of Avignon, lived in the sixteenth cen-

tury. Before he obtained these high dignities, Pius V. intrusted to him the supervision of the galleys of the States of the Church; and Grimaldi, though already bishop, was present at the naval battle of Lepanto (1571), on which occasion he is said to have distinguished himself by his courage. The annals of the Roman church also relate of this warlike prelate, that he succeeded in totally extirpating the poison of heresy from his diocese. He died in 1592, and left behind a volume of letters relative to the events in which he had been engaged.

5. *Geronimo Grimaldi*, born at Genoa in 1597, was appointed, in his twenty-eighth year, vice-legate of Romagna, and afterwards bishop of Albano, and governor of Rome. Urban VIII. sent him as nuncio to Germany and France; and the services which he rendered the Roman court were rewarded, in 1643, by a cardinal's hat. After the death of Urban, Grimaldi, from gratitude, protected his family, and thus incurred the displeasure of Innocent, who refused, during his whole life, to sign the bull, constituting Grimaldi archbishop of Aix. Not till Alexander VII. succeeded Innocent, was he able to enter on his new office (1655). He endeavoured to reform the manners of the clergy of his diocese, for which purpose he established an ecclesiastical seminary; he likewise founded an hospital for the poor, and annually distributed 100,000 livres of his vast property in alms. He contributed much to the election of Innocent XI., whose virtues he revered. Although he was subsequently appointed dean of the holy college in Rome, he could not resolve to abandon the congregation intrusted to him. He died at Aix, in 1685, ninety years of age.

6. *Nicholas Grimaldi*, born in 1645, was invested with the Roman purple by Clement XI., in 1706. He died in 1717, leaving immense wealth.

7. Another *Geronimo*, born in 1674, was honoured with a cardinal's hat. He had previously been the nuncio of the Roman court at Avignon, and afterwards at Brussels, in Poland, and Germany. He was subsequently appointed cardinal legate of Bologna. He died in 1733.

Besides these Grimaldis, we find others of this name, conspicuous in science and art.

1. *Giacomo*, a writer of the sixteenth century, whom Tiraboschi mentions with great praise. He was born at Bologna, embraced the clerical profession, and, as superintendent of the archives of the church of St Peter in Rome, rendered an important service by arranging the whole of this valuable collection. He also attempted to explain the ancient inscriptions, discovered during the pontificate of Paul V., by illustrative remarks. A list of his antiquarian and philological writings may be found in the fourth volume of *Scriptor. Bolognesi*. He died in 1623.

2. *Giovanni Francesco*, called *Bolognese*, from his having been born in that city, lived in the seventeenth century, and was an eminent painter, architect, and engraver. In the first mentioned art, he took the Carracci for his model; he also studied some time with Albano. Having been invited to Paris by cardinal Masarin, he painted several frescos in the Louvre. As an architect, he was no less distinguished; and his engravings are highly esteemed. Innocent X. employed him to execute the frescos in the Vatican and the Quirinal. Several of his best paintings are to be found in the church Sta. Maria del Monte in Rome; the museum at Paris also contains some of his best productions. He died in 1680, seventy-four years of age. Alexander, a son of his, is likewise known as a painter.

3. *Francesco Maria*, a Jesuit, was born in Bologna in 1613, and was distinguished as a mathematician. He assisted Riccioli in his mathematical labours, and afterwards published a work on the spots on the moon. He also wrote *Physico-mathesis de Lumine Coloribus et Iride, aliisque annexis* (Bologna, 1665, 4to). This learned Jesuit died in his native city, in 1663.

4. *Francesco*, who likewise lived in the seventeenth century, and was born in the kingdom of Naples, joined the Jesuits, and is distinguished as a Latin poet. We have several bucolic and dramatic poems from him, which evince his talents. He died while professor of rhetoric in the college of the Jesuits, in Rome, in 1738, about sixty years of age.

5. *Peter Grimaldi*, likewise a Jesuit, was born in Civita-Vecchia, lived in the eighteenth century, and was, for a long time, a missionary in the East Indies. There is a story of him, that, on his return to Europe, he invented a machine, by means of which (1751) he passed through the air from Calais to Dover in an hour. It is mentioned by Pingeron, in his translation of the work of Milizia, and by Fontenai, in his *Dictionnaire des Artistes*. Since they give no more explicit account of the affair, and as this previous experiment is not quoted in the treatises that appeared at the time of the invention of the air-balloon (1784), we must entertain some doubt of the truth of the aerial journey ascribed to Peter Grimaldi.

6. *Constantine*, born at Naples, in 1667, died there in 1750, was a jurist, and was distinguished for his knowledge of history, medicine, and theology. He is, however, principally known for his controversy with Benedictis, a blind advocate of the philosophy of Aristotle, who was then publishing his *Lettere apologetiche*, in which he made a furious attack on Descartes and his followers. Grimaldi defended the Cartesians, and, in a severe reply, reduced the father *ad absurdum*.

7. *Francesco Antonio* (who died in Naples in 1784) was the author of some good historical works on Naples, and the constitution of that country.

GRIMM, Frederic Melchior, baron of; counsellor of state of the Russian empire, grand cross of the order of Wladimir; a man of letters, whose great reputation has arisen from posthumous publications. He was born in 1723, at Ratisbon, of poor parents, who, however, bestowed on him a good education. His taste for literature manifested itself in his youth, when he wrote a tragedy. Having finished his studies, he went to Paris as governor to the children of the count of Schomberg. Soon after, he was appointed reader to the duke of Saxe-Gotha. At this period, he became acquainted with Jean-Jacques Rousseau, who introduced him to Diderot, D'Alembert, D'Holbach, and other Parisian philosophers; a piece of service which, according to Jean-Jacques (*Confessions*, 8), he repaid with ingratitude. The count de Friese made him his secretary, with appointments which rendered his circumstances agreeable, and left him at liberty to pursue his inclinations. His vanity induced him to give himself the airs of a man of gallantry; and, as he attempted to repair the ravages of time by means of cosmetics, the Parisians bestowed on him the sobriquet of *tyran le Blanc*. The arrival of a company of Italian *bouffons* in Paris having divided all the musical connoisseurs into two parties, Grimm declared for the Italian music, and was at the head of the *coin de la reine*, a party so called because they used to sit in the pit, under the queen's box, whilst the friends of Rameau and the French music formed the *coin du roi*. Grimm wrote on this occasion a pamphlet, full of wit and taste, *Le petit Prophète de Böhmischbroda*, and, when his adversaries attempted to answer it, completely confuted them by his *Lettre sur la Musique Française*. These pamphlets irritated so many persons against him, that they talked of exile, the Bastile, &c.; but when the ex-

tement had subsided, he obtained a general applause. On the death of the count de Friese, Grimm was nominated principal secretary to the duke of Orleans. The fame of the French literati, with whom he was connected, led to his being employed, in connection with Diderot, to transmit to the duke of Saxe-Gotha an account of the writings, friendships, disputes, &c., of the authors of that period. Copies of this curious correspondence were also sent to the empress Catharine II., the queen of Sweden, Stanislaus, king of Poland, the duke of Deux-Ponts, the prince and princess of Hesse-Darmstadt, &c. Frederic the Great gave him marks of great esteem. In 1776, he was appointed envoy from the duke of Saxe-Gotha to the French court, honoured with the title of baron, and with several orders. On the revolution breaking out, he retired to the court of Gotha, where he found a safe asylum. In 1795, the empress of Russia made him her minister plenipotentiary to the states of Lower Saxony; and he was confirmed in that post by Paul I., and retained it till ill health obliged him to relinquish it. He then returned to Gotha, and died there, Dec. 19, 1807. His grand work was published in different portions successively, under the following titles:—*Correspondance Littéraire, Philosophique et Critique, adressée à un Souverain d'Allemagne, depuis* 1770, *jusqu'en* 1782, *par le Baron de Grimm et par Diderot* (Paris, 1812, 5 vols. 8vo); *Correspondance Littéraire*, &c., *en* 1775, 1766, 1782—1790 *(troisième et dernière Partie*, 1813, 5 vols. 8vo); and *Correspondance Littéraire*, &c., *depuis* 1753, *jusqu'en* 1760, (*première Partie*, 6 vols. 8vo). A selection from this voluminous mass of literary gossip was published in 2 vols. 8vo, in French and English.

GRISELDA; the ever-patient wife of the marquis di Saluzzo, the subject of the tenth *novella* in the tenth *giornata* of Boccaccio's *Decameron*. The marquis's *beau ideal* of a wife was a woman of all-enduring patience. He chooses Griselda, the daughter of one of his tenants, ill-treats her in a variety of ways, takes away her two sons, and makes her believe that they are killed. At last he turns her out of doors in her shift, and celebrates a marriage with a noble lady. But finding that Griselda endures every thing patiently, he takes her back, restores her two sons, and treats her as marchioness. No one can suppose that Griselda is held up as a model. One might as well have a wax image for a wife. This subject has been treated by poets of many other nations; for instance, by Chaucer. *Griselda* is, therefore, not unfrequently used to designate a woman whose patience is trial-proof.

GRISETTE (*French*); originally a dress of coarse gray cloth, worn by the females of the lower classes; hence it is used for the females themselves, and is generally used to signify a belle of the lower classes. In the language of the theatre, *grisette* signifies an intriguing young girl, of the class of *soubrettes*.

GRISONS, THE (*Graubündten*); the Upper Rhætia of the ancients; since 1788 a canton of the Swiss confederacy. It is the largest in the confederacy, containing 3000 square miles, with 75,000 inhabitants, and is bounded N. by Glarus, St Gall, and the Vorarlberg; E. by the Tyrol; S. by the Valteline, Milan, and the canton Ticino; W. by Uri. The Grison Alps rise 11,000 feet above the level of the sea; the line of perpetual snow is from 8200 to 8400 feet; they contain 241 glaciers and 56 waterfalls. The Inn and the Rhine have their sources here. The lowest point of the populous valley Engadin, at Martinsbruck, is 3234 feet above the level of the sea; the highest village is situated at an elevation of 5600 feet. The varieties of climate are, therefore, very striking in the Grisons.

The country is divided into five great valleys;—1. The valley of the posterior Rhine, which includes the Rheinwald, and the valleys of the Schamser, the Via Mala, and the Domlesch. The latter is formed by the posterior Rhine, is the mildest district in the Grisons, and contains twenty-two villages, in which the Romansh, a mixture of Latin, German and Italian, is spoken. The Schamser-Valley contains nine villages, and is about seven miles long. Between this and the Rheinwald is the terrible Via Mala, which is formed by the posterior Rhine. In this and in the Rheinwald, the winters last nine months, on account of their elevated situation. Two formidable roads lead to Italy, one over the Splugen, the other over the St Bernard. The former was passed, in 1800, by the French, under Macdonald. Lecourbe, with a considerable corps, ventured to enter the latter in 1797.—2. The second valley is that of the anterior Rhine, which extends from the western frontier and the St Gothard to Coire and Luciensteig. Here are the most interesting points—the old Benedictine abbey Disentis, whose literary treasures and buildings were destroyed, in 1799, by the French: also Ilants (the town), the old Coire (q. v.), where Roman antiquities and coins are found.—3. The third valley is that of Engadin, or the valley of the Upper Inn, which stretches from south-west to north-east, and contains, indeed, no important town, but incomparable views and picturesque scenery. It is one of the most romantic spots on earth.—4. The fourth valley is formed by the Albula, a river which rises in the Julian or Septimian mountains, and falls into the posterior Rhine at Thusis.—5. The fifth valley is that of the Prettigau, situated on the northern frontier, in the neighbourhood of the Vorarlberg; Mayenfield is the principal town.

The people of the Grisons are divided into three leagues (in German, *Bünde*; hence the German name of the canton, *Graubündten*;) the League of God's house, the capital of which is Coire; the Gray League, with Ilants; and the League of the Ten Jurisdictions, of which Davos is considered as the chief place. In these three places sixty-three deputies of the leagues assemble annually in September, under three heads, deliberate on the affairs of the canton, and decide, finally, in legal cases. The canton sends 1600 men to the army of the confederacy, and contributes 12,000 guilders. About two thirds of the inhabitants profess the Helvetic Protestant religion. But the ministers have so scanty an income, that they are obliged to maintain themselves by their industry. The only Latin school is in Coire. About 10,000 of the inhabitants speak an Italian dialect; these are in Engadin. About 28,000 speak the Swiss dialect of the German, and more than 36,000, chiefly near the sources of the Rhine, speak the Romansh or Ladin. This language is a relic of the old *Romana rustica*. Commerce is much interrupted by the narrowness of the passes on the frontiers. The exports (chiefly to Milan) are cattle, cheese, coals, and rare minerals; for which, grain, salt, linen, and cloth are received in return.

GRIST MILL. See *Mill*.

GRITTI; a noble Venetian family. *Andrew*, having been taken prisoner by the Turks, concluded a treaty between the Porte and Venice (1501). At a later period, he commanded the Venetian armies in the war against the league of Cambray, was made prisoner by Gaston de Foix (q. v.) and persuaded Louis XII. to secede from the league, and, in 1513, to conclude a treaty with the republic. From 1523 to 1538, he was doge.—*Ludovico Gritti*, son of Andrew, was born in Constantinople, during his father's captivity; served in the armies of the Turks, among whom he enjoyed a high reputation; commanded at

the siege of Vienna; defended Buda, in 1531; became governor of Hungary, but drew upon himself the popular hatred by the murder of the bishop of Wardein. The Hungarians besieged him in Medwisch, which they took in 1534. They cut off his hands in the morning, his feet at noon, and his head in the evening.

GROG; a general name for any spirituous liquor and water mixed together; but is more particularly applied to rum and water cold, without sugar.

GROIN, among builders, is the angular curve made by the intersection of two semi-cylinders or arches, and is either regular or irregular:—*regular*, as when the intersecting arches, whether semicircular or semi-elliptical, are of the same diameters and heights; and *irregular*, when one of the arches is semicircular, and the other semi-elliptical.

GRONINGEN; a province of Holland situated between 52° 50′ and 53° 28′ N. lat., and 6° 10′ and 7° 19′ E. lon., on the coast of the German ocean, and containing 780 square miles. It is protected against the encroachments of the sea by dikes. It is very level, and is intersected by innumerable canals, partly for the purpose of safety, and partly to drain the land, which is in some parts fertile, in others sandy, and in others marshy. In the south-east are the vast morasses of Bourtange. There are many lakes, of which the Zuidlaader, the Schild and the Foxholster are the principal. The climate is damp. The 142,575 inhabitants are mostly Calvinists, and raise great numbers of cattle. Groningen takes the sixteenth place in the kingdom, and sends four deputies to the states-general. The provincial states consist of 36 members. In 1810, it was made a department of the French empire, under the name of the *Western Ems*.

Groningen; capital of the province of Groningen, is situated on the rivers Hunse and Fivel, eighty-one miles west of Bremen, 100 miles north-east of Amsterdam; lat. 53° 13′ 13″ N.; lon. 6° 34′ 26″ E. It is large, rich, strong, well peopled, and adorned with many excellent buildings, public and private; its figure is nearly round, encompassed with good ramparts, guarded by large ditches filled with water, besides many bastions and other fortifications, which would render an attack upon it very difficult. Its port is very commodious; ships enter with great ease by means of a canal, whose sides are lined with large stones for about nine miles from the sea. The university of Groningen, founded in 1614, and endowed with the revenues of several monasteries, has long been respectable. It consists of five faculties, and has a good library. Here are also academies for drawing, navigation and agriculture, an institution for the deaf and dumb, and societies of lawyers and physicians. In 1826, an epidemic, caused by the great drought, did great injury. Some authors think this city to be on the spot of the ancient fortress which Tacitus mentions under the name of *Corbulonis Monumentum*, but there is no historical proof of it. Population about 30,000.

GRONOVIUS (properly *Gronov*); the name of several celebrated critics and philologists.

1. *John Frederic*, one of the most learned students of antiquities, was born at Hamburg in 1611. He studied at Leipsic and Jena, and went through a course of law at Altdorf, spent some time in Holland and England, was appointed professor of history and eloquence at Deventer, and, after the death of Daniel Heinsius, succeeded him, as professor of belles-lettres at Leyden (1658), where he died 1671. With extensive knowledge he combined indefatigable industry and amiable manners. His editions of Livy, Statius, Justin, Tacitus, Gellius, Phædrus, Seneca, Sallust, Pliny, Plautus, &c., and his Observations, are valuable for their notes and improved readings. His *Commentarius de Sestertiis* displays a thorough acquaintance with the Roman language and antiquities; and his edition of Hugo Grotius's work, *De Jure Belli et Pacis*, is justly valued, on account of the notes.

2. His son *James*, born at Deventer, in 1645, studied there and at Leyden. He spent some months at Oxford and Cambridge, and returned to Leyden, where he published, in 1676, an edition of Polybius, which met with such applause, that he received an offer of a professorship at Deventer. He refused it, however, from a desire to travel through France, Spain, and Italy. The grand-duke of Tuscany conferred on him a professorship at Pisa, which he relinquished in 1679, and was appointed professor of belles-lettres at Leyden and geographer to the university. He died at Leyden in 1716. This learned and industrious critic edited Tacitus, Polybius, Herodotus, Pomponius Mela, Cicero, Ammianus Marcellinus, &c., and compiled the valuable *Thesaurus Antiquitatum Græcarum* (Leyden, 1697, 13 vols. fol.). He also promoted the publication of the collections of Grævius. (See *Grævius*.) These two works should be united, and, to form a complete library of antiquities, the *Novus Thesaur. Ant. Rom.* by Sallengre (Hague, 1716, 3 vols. fol.), the *Utrique Thes. nova Supplementa*, by Poleni (Venice, 17[illegible] 5 vols. fol.), the *Inscriptiones Antiquæ totius Orbis Rom.* by Gruter (Amsterdam, 1707, 4 vols. fol.), and the *Lexicon Ant. Rom.*, by Pitiscus, (Leuwarden, 1713, 2 vols. fol.), should be added. He had many weak points in his character, and his vanity led him to assail and calumniate men of the greatest merit, such as Henry Stephens, Spanheim, Vossius, Salmasius, Bochart, and Grævius.

3. His son *Abraham*, born at Leyden, 1694, showed himself a good philologist, by his editions of Justin, Pomponius Mela, Tacitus, and Ælian. He died there in 1775, librarian to the university.

GROS (*French*); thick, strong; a word used in many compositions for silks, as *gros de Naples*, *gros de Tours*, *gros de Berlin*, &c., all strong fabrics.

GROSBEAK (*loxia*, L.) These birds are in general shy and solitary, chiefly living in woods, at a distance from the habitations of man. Their vocal powers are not great, and hence they are little sought after as song birds. Their most conspicuous characteristics are the thickness and strength of their bills, which enable them to break the stones of various kinds of fruits. There are many species of them, the best known of which is the *L. coccothraustes*. This species is an inhabitant of the temperate parts of Europe. Buffon says it is a shy and solitary bird, with no song. The female builds her nest in trees; it is composed of small, dry roots and grass, and lined with warmer materials. The eggs are roundish, of a bluish green, spotted with brown. The green grosbeak (*L. chloris*) is common in every part of Great Britain, and may be seen in every hedge, especially in winter. It does not migrate. The female builds in hedges or low bushes; she lays five or six eggs, of a pale greenish colour, marked at the larger end with spots of a reddish brown. The pine grosbeak (*L. enucleator*) inhabits the cold regions of both continents, whence it occasionally visits temperate climates in the winter. The female makes her nest on trees, at a small distance from the ground, and lays four white eggs. There are several species peculiar to North America, as the cardinal bird (*L. cardinalis*), which is found from New England to South America, and is most numerous west of the Alleghanies. This beautiful bird, which is often kept in cages, on account of its bright plumage, is crested, of a red colour, brighter beneath, with the throat

black, and bill red; the female is of a drab red colour. The other species are, evening grosbeak (*L. vespertina*), rose-breasted grosbeak (*L. ludoviciana*), blue grosbeak (*L. carrulea*).

GROSCHEN; a silver coin, so called from the Latin *grossus* (thick); thick coins, in opposition to thin lead coins. The oldest groschen known were struck in Treves, in 1104. The first Bohemian groschen were coined in 1296, at Kuttenburg. In 1525, the groschen was divided into twelve pfennige. In 1504, the small groschen, now in use, were first struck at the city Goslar. The Marien-groschen are valued at eight pfennige, and thirty modern groschen of Prussia are equal to a thaler. *Grosch* is also the name of a Russian copper coin, worth two kopecks.

GROSS (*Ital.*), in opposition to *net*, is applied to merchandise, including that in which it is packed. It refers particularly to weight. Thus we say, "The bag of coffee weighs nine hundred weight *gross*," that is, including the weight of the bag.

GROSS-BEEREN; a town of Prussia, near Berlin, noted as being the scene of an obstinate conflict between the allied powers and Napoleon Bonaparte, on the 23d August, 1813. The armistice having expired on the 17th of August in that year, the war between the allies and Napoleon commenced anew, and the emperor of France desired to hurl his bolts, at the same time, into the camps at Breslau, Prague, and Berlin. They recoiled upon himself on the Katsbach, at Culm, and Gross-Beeren. Berlin was protected by the militia and the northern army, commanded by Bernadotte, then crown-prince of Sweden, and consisting of the third and fourth Prussian divisions, the Russian corps under Woronsow, Winzingerode, and Csernitschef, and about 22,000 Swedes. The French army, reinforced by the forces of Wurtemberg, Bavaria, Darmstadt, and Saxony, was formed into four divisions, led by Oudinot (the general-in-chief), Victor, Regnier, and Bertrand, and was, together with the cavalry, under Arrighi, from 80,000 to 90,000 strong. Its destination was the capture of Berlin, and it was supported by general Girard, with the garrison of Magdeburg; but the crown-prince performed, in detail, the same operations against this body as the allies against the main body of the enemy. His army formed a curve from Buchholtz, the extremity of the left wing, through Mittenwalde, Klein-Beeren, Heinersdorf, Blankenfeld, Ruhlsdorf, to Selitz and Truenbriesen, the extreme right wing, from which the Russian line inclined inwards towards Juterbock; while the Prussians, in the centre, were advanced to Trebbin. The Prussian generals Hirschfeld and Puttlitz observed Magdeburg beyond Brandenburg. On both wings, the light troops were dispersed as far as Wittenberg, Guben, and Baruth. On the 22d, the enemy entered the curve—Regnier in the centre, Bertrand on the right, and Oudinot on the left wing. They attacked the Prussians at Trebbin, who gave way. On the 23d, Bertrand fell upon general Tauenzien at Blankenfeld, but was repulsed. Regnier forced his way to Gross-Beeren, the key-stone of the arch, about ten miles from Berlin. Here he was unexpectedly attacked by the brave Bulow. At the same time, Borstell surrounded the right wing of the enemy. The Prussians fought with great courage, in sight of their capital. A mounted Saxon battery having been outflanked and taken, they advanced to a charge. The discharge of fire-arms being rendered impossible by the rain, the soldiers fought with the butt-ends of their muskets and with bayonets. Gross-Beeren was taken by storm; the Saxon and the second French division were driven from the field, and the cavalry of the duke of Padua routed. Oudinot now brought up the three divisions of reserve, which were attacked by the Russians and Swedes as they deployed from the wood. Cardell, colonel of the Swedish forces, supported by an attack of cavalry, took the enemy's artillery. Oudinot now abandoned the struggle, and retreated to Wittenberg and Torgau, on the Elbe. He lost thirty cannons and more than 2000 prisoners. The Prussians gained possession of Juterbock, and, on the 28th, of Luckau. A pyramid of cast iron has been erected on the spot by Frederic William III.

GROTESQUES, in painting, are often confounded with *arabesques*. All ornaments compounded in a fantastical manner, of men, beasts, flowers, plants, &c., are called sometimes *arabesques*, and sometimes *grotesques*; but there is a distinction between them. Arabesques are flower-pieces, consisting of all kinds of leaves and flowers, real or imaginary. They are so called from the Arabians, who first used them, because they were not permitted to copy beasts and men. As they were also used by the Moors, they are sometimes called *moresques*. The Romans ornamented their saloons with paintings, in which flowers, genii, men and beasts, buildings, &c., are mingled together according to the fancy of the artist. These ornaments are properly called *grotesques*, because they were found in the ruined buildings of the ancient Romans, and in subterranean chambers, which the Italians call *grottoes*. The origin of these fantastic compositions is traced, by Bottiger, to the carpets of Persia and India, adorned with all the wonders of Oriental fable. In the baths of Titus and Livia, at Rome, in Adrian's villa at Tivoli, in the houses in Herculaneum and Pompeii, and many other places, such grotesques have been found; sometimes, indeed, showing an excess of ornament, but generally valuable for their arrangement and execution. Raphael was well aware of their beauty, and caused his pupils, particularly Giov. Nanni da Udine, to use them as patterns in painting the porticoes of the Vatican. He likewise used them, as the ancients did, for borders. The taste for grotesques has, in part, degenerated into the monstrous and unnatural; *grotesque* has therefore become a term of art to express a distorted figure, a strange monster, the offspring of an unrestrained imagination.

GROTIUS, or DE GROOT, Hugo, a scholar and statesman of the most diversified talents, was born at Delft, April 10, 1583. He was descended from a noble family, and received an excellent education. In his fifteenth year, he sustained, with general applause, theses on philosophy, mathematics, and law. The next year, he accompanied Barneveldt (q. v.), the Dutch ambassador, to France, where he gained the approbation of Henry IV., by his genius and demeanour, and was everywhere admired as a prodigy. After his return, he conducted his first lawsuit in his seventeenth year; and, in his twenty-fourth, was appointed advocate-general. In 1613, he became syndic, or pensioner, of Rotterdam. The disputes of the Remonstrants and their opponents then disturbed the tranquillity of Holland. (See *Arminians*.) Barneveldt was the defender of the former party. Grotius, who had declared himself on the side of Barneveldt, supported him by his pen and influence. This involved him in the trial which terminated in the beheading of Barneveldt, in 1619, and the condemnation of Grotius to imprisonment for life in the fortress of Louvestein. He succeeded in escaping from this fortress by concealing himself in a chest, in which his wife had sent him books. After wandering about for some time in the Catholic Netherlands, he escaped to France. Louis XIII. gave him a pension of 3000 livres. The Dutch ambassadors endeavoured in vain to prejudice the king against him. Richelieu was unfavourably disposed towards him, and, in 1631, even his pension was withdrawn. Grotius then

returned to his native country, relying on the favour of Frederic Henry, prince of Orange, who had written him a sympathising letter. But, by the influence of his enemies, he was condemned to perpetual banishment. Grotius next proceeded to Hamburg. During his residence in that city, the kings of Denmark, of Poland, and of Spain, made attempts to persuade him to settle in their states; but the protection which the chancellor Oxenstiern promised him, and the inclination of queen Christina for learning, induced him to accept the offers of this princess. In 1634, he went to Stockholm, where he was appointed counsellor of state and ambassador to the French court. This choice displeased cardinal Richelieu, who was irritated to see a man return, who had been denied protection and a residence in France; but Oxenstiern would not allow any other minister to be nominated, and Grotius appeared at Paris in 1635. He discharged his duties, as ambassador, for ten years, and gained universal respect. On his return to Sweden by the way of Holland, he met, in Amsterdam, with the most honourable reception. Most of his enemies were dead, and his countrymen repented of having banished the man who was the honour of his native land. He was received with equal favour by the queen in Sweden. He afterwards requested his dismission, and, having finally obtained it, was on his way to Holland, when a storm drove him to Pomerania. He fell sick at Rostock, where he died, Aug. 28, 1645. With the talents of the most able statesman, Hugo Grotius united deep and extensive learning. He was a profound theologian, excellent in exegesis, his Commentary on the New Testament being still esteemed; a distinguished belles-lettres scholar, an acute philosopher and jurist, and an historian intimate with the sources of history. His writings have had a decisive influence on the formation of a sound taste, and on the diffusion of an enlightened and liberal manner of thinking in affairs of science. As a philologian, he seises the genius of his author with sagacity, illustrates briefly and pertinently, and amends the text with facility and success. His metrical translations from the Greek are executed with the spirit of a poet. Among the modern Latin poets, he holds one of the first places, and he also tried his powers in Dutch verse. But the philosophy of jurisprudence has been especially promoted by his great work on natural and national law, *De Jure Belli et Pacis*, which laid the foundation of a new science; besides which he wrote *Annales Belgicæ usque ad Ann.* 1609, *Parallelon Rerumpublic.* *De Veritate Religionis Christ.*, and *Poemata* (Leyden, 1617, 12mo).

GROTTA DEL CANE (*dog's cave*); the most remarkable of the many grottoes around Naples, mentioned even by Pliny (lib. 2, c. 90), hollowed out of a sandy soil, to the depth of ten feet, and the breadth of four. A light vapour, resembling that of coal, is always seen rising about six inches in height. The walls do not exhibit any incrustation or deposit of saline matter. No smell is emitted, except that which is generally connected with a subterranean passage. A dog is most commonly chosen to exhibit the effects of this vapour. The animal, held in it, at first struggles considerably, but loses all motion in about two minutes, and would immediately die, if it was not withdrawn into the open air. The effect is the same on all animals, and is owing to the presence of carbonic acid gas (see *Carbon*), which produces death merely by suffocation. A man, however, may enter the cave with impunity, as he may wade into the water, because the specific gravity of the gas prevents its rising above five or six inches from the floor. See *Damp*.

GROTTO; a small artificial edifice made in a garden, in imitation of a natural grotto. The outsides of these grottoes are usually adorned with rustic architecture, and their inside with shell-work, coral, &c.

GROUNDSEL (*senecio vulgaris*); a weed belonging to the natural order *compositæ*; the stem is fistulous, about a foot high; the leaves amplexical and sinuate-pinnatifid; the flowers small, yellow, destitute of any ray, and disposed in a loose corymb. The plant is emollient, has an herbaceous and slightly acid taste, but is rejected by almost every quadruped, except the hog and goat; small birds, however, are very fond of the seeds. Such was the mildness of the weather in the beginning of the winter of 1824–5, that this plant flowered on the 30th of December, in the streets of Boston in America.

GROUND TACKLE; a general name, given to all sorts of ropes and furniture which belong to the anchors, or which are employed in securing a ship in a road or harbour; as cables, anchors, bow-lines, &c.

GROUP (Italian *groppo* or *gruppo*); a term employed, in painting and sculpture, to signify an assemblage of several objects, such as figures of men, beasts, trees, or the like, which have some relation to each other, arranged in such a manner as to present to the eye one connected whole. To group objects, is to arrange them according to their magnitude, direction, apparent motion, &c., so as to form one whole. Rules for the disposition and employment of groups are derived from philosophical principles of art. These rules require a unity of interest, which is by no means inconsistent with variety of expression. Thus, in historical paintings, all the figures have reference to the principal one, to which the attention is chiefly directed. The groups must also be easily embraced by the eye, and agreeable. This depends upon a skilful arrangement of the figures and distribution of the light. The cone, the pyramid, and a bunch of grapes, have been taken as models of a group. Titian regarded the bunch of grapes as a model, because, in its outlines and surfaces, it exhibits a unity connected with the most agreeable variety, and all the necessary differences of light and shade and reflections. In the pyramid we have the model of the relation between a small height and broad surface. Mengs advises to bring the larger masses into the centre, and the smaller to the circumference, which gives lightness and grace to the group; not to arrange the figures in succession, nor to bring out various prominent parts of the figure, for instance, heads, so as to form together straight, horisontal, perpendicular or oblique lines; to avoid geometrical figures, too great regularity and repetition, and to exhibit only the most beautiful portions. He also thinks it advantageous to unite the groups of figures in uneven numbers, and to observe the same rules in collecting the groups into pictures. Of the even numbers, he says, the most tolerable are those which are made up of two uneven numbers; for example, 6, 10, 14: but those formed of two even numbers, such as 4, 8, 12, can never be introduced with grace. The reason is that such a disposition serves to avoid uniformity. If monotony of figures in a group is intolerable, a monotony of groups in a picture is as little to be endured; and one pyramidal group at the side of another gives to the whole a stiff and constrained appearance. Moreover, objects apparently separate may often serve to unite two groups, otherwise distinct, which the artist effects by a skilful intermingling of light and shade.

GROUSE (*tetrao*). This is a large genus of birds, whose distinguishing mark is a naked band, often of a red colour, in place of an eyebrow. They are wild, shy, and almost untamable. They live in families, dwelling in forests, barren countries, far from

an and cultivation. They feed exclusively on rries, buds and leaves. They are polygamous, the ale abandoning the female, and leaving to her the ole care of the progeny. The number of eggs varies om eight to fourteen.

The largest species is the *wood grouse* (*T. urogallus*). This is superior in size to the turkey. It es in pine forests, feeding on the cones of the fir, nich, at some seasons, give an unpleasant flavour its flesh.

The *black grouse* (*T. tetrix*), is about the size of a mmon fowl, though it is much heavier. It chiefly es in high and wooded situations, feeding on various ads of berries. It does not pair, but, on the return spring, the males assemble in great numbers, hen a contest for superiority ensues, and continues ith great bitterness till the vanquished are put to ght.

Red grouse (*T. Scoticus*). This bird is also called *orfowl*, and is found in great plenty in the High- nds of Scotland. It pairs in the spring; the female ys eight or ten eggs. The young follow the hen e whole summer. As soon as they have attained eir full size, they unite in flocks of forty or fifty, d are extremely shy and wild.

White grouse (*T. albus*). This bird is ash-coloured summer, but its hue changes to a pure white in inter. It is found in most northern regions. uffon, speaking of this bird, says that it avoids the lar heat, and prefers the biting frosts on the tops mountains; for, as the snow melts on the sides of e mountains, it constantly ascends. The flesh is ark coloured.

There are also several species peculiar to North merica, the most remarkable of which is the *innated grouse*, or heath hen (*T. cupido*). This arious bird inhabits open, desert plains in particular istricts of the Union, avoiding immense intermediate egions. The male is furnished with wing-like ap- endages to his neck, covering two loose, orange, kinny bags, capable of being inflated. Its favourite od is the partridge berry, though it is also fond of hortleberries and cranberries. It commonly unites covies, until the pairing season.

Ruffed grouse, or partridge of the Eastern States, d pheasant of Pennsylvania (*T. umbellus*), well nown in almost every quarter of the United States. s favourite places of resort are high mountains, vered with the balsam pine, hemlock, &c.; it is ldom found in open plains. The manners of this rd are solitary, being usually found in pairs or singly. generally moves along with great stateliness, with e tail spread out like a fan. The male makes a eculiar noise termed *drumming*. This is done by pidly striking with his stiffened wings; it is most mmon in the morning and evening. It pairs in pril, and lays in May. The eggs are from nine to leen in number. It is in best order for the table September and October.

The other American species are, the *dusky grouse* (*T. obscurus*), inhabiting the Rocky mountains; *anadian grouse* (*T. Canadensis*), peculiar to the rthern and north-western parts of the United States, ore common in Canada: *long-tailed grouse* (*T. ongicaudatus*) inhabits the western wilds of the United tates beyond the Mississippi.

GRUNBERG; a city in the Prussian government Liegnitz, Silesia, with 10,000 inhabitants. It anufactures a great quantity of broadcloth, and is rrounded by vineyards, which produce large quan- ties of wine. The wine is much used to mix with ferior French wines, to be sold in the interior. It so astringent, that it is commonly said, in Germany, You can mend the holes of a stocking by putting me Grunberg wine into it."

GRUNER, CHRISTIAN GÓDFREY; a celebrated German physician, born Nov. 8, 1744, at Sagan, in Silesia. He first studied theology, at the desire of his father, after whose death he followed his own inclination for the medical science, in which he became one of the most prolific and practical writers. He wrote about fifty large works, and many essays, which show a thorough acquaintance with ancient medical literature, as well as sound practical judgment. He was a long time professor in the university at Jena, where he died Dec. 4, 1815. He was member of a vast number of academies and learned societies in Germany and other countries.

GRY; a measure containing one tenth of a line.

GRYPHIUS, ANDREW (properly, *Greif*), a dramatic poet, was born 1616, at Glogau. He studied at Fraustadt and Dantsic, and acquired an extensive knowledge of law; after which he became tutor in a family. He passed ten years in travelling through Holland, France, and Italy, during which he formed friendships with many of the most eminent men of the age. On his return, he became syndic to the senate of Glogau. He died suddenly (1664), in an assembly of the estates. Gryphius did much for German literature. At a time when there were no German dramas but the carnival plays, he wrote tragedies and comedies, which displayed his acquaintance with ancient and modern literature, and contained many poetical passages, though they showed no acquaintance with theatrical effect. The Dutch poet Vondal seems to have been his model. Many of his other poems breathe a high lyric spirit, mixed with a tone of melancholy, occasioned by his misfortunes.

GUADALAXARA; formerly an intendancy of Mexico, bounded N. by Sonora and Durango, E. by Zacatecas and Guanaxuato, S. by Valladolid, and W. by the Pacific ocean; it is 350 miles long and 300 broad; square leagues, 9612; population in 1803, 630,000. It contains two cities, six towns, and 322 villages. The principal mines are those of Bolanos, Arientos de Oburra, Hostiotipaquillo, Copala, and Guichichila. It is crossed from E. to W. by the Rio de Santiago. All the eastern part is table land, and has a pleasant climate. The maritime regions are covered with forests and abound in excellent timber for ship-building; but the air is very hot and unhealthy. This country now forms the state of Yalisco, in the Mexican confederacy.

GUADALAXARA; a city in Mexico, capital of the country of the same name, on the Santiago, 240 miles N. W. of Mexico; lon. 103° 2′ W.; lat. 21° 9′ N.; population, 19,500—Spaniards, mulattoes, and mestisoes. It is a bishop's see, and is situated in a delightful and fertile plain, is regular and handsome, containing eight squares, a magnificent cathedral, two colleges, many convents, and a manufactory of cigars. The houses are mostly of only one story, the streets unpaved, and the carriages are drawn by unshod mules.

GUADALOUPE; an island of the West Indies, and one of the largest and most valuable of the Caribbee islands. It is situated in lon. 62° W., and in lat. 16° 20′ N., and is between sixty and seventy miles in length, and about twenty-five miles in its greatest breadth. It is divided into two parts by a channel, in breadth from thirty to eighty yards. This channel runs north and south, and communicates with the sea on both sides by a large bay at each end. The east part of the island is called *Grande Terre*, and is about fifty-seven miles from Antigua point. This part is about 120 miles in circumference. The west part, which is properly Guadaloupe, is divided by a ridge of mountains. This is thirty-six miles from north to south, and twenty-three

where broadest, and about 120 in circuit. In many parts the soil is rich. Its produce is the same with that of the other West India islands, namely, sugar, coffee, rum, ginger, cocoa, logwood, &c. The island is well stored with horned cattle, sheep, horses, &c. This island was first discovered by Christopher Columbus. It was taken possession of by the French in 1635, who drove the natives into the mountains. In 1759, it was taken by a British squadron, and was restored to France at the peace of 1763. It was again taken by the British in 1794; but was retaken by the French in 1795. In 1810, it was again taken possession of by a British armament; and, in 1814, was restored to the French. Population, 120,000: whites, 12,500; slaves, 101,000; free negroes, 6500.

GUADET, MARGUERITE ELIE; one of the most distinguished leaders of the Girondists. See *Girondists*.

GUAIACUM; a genus of plants, containing four or five arborescent species, natives of the West Indies and the tropical parts of America. The yellowish-brown gum resin, bearing the same name, is obtained by wounding the bark of one or more of these trees. It has a bitter, aromatic taste, is sudorific, and is frequently employed in chronic rheumatism, sciatica, &c. The wood itself possesses similar medicinal properties. The leaves are opposite, pinnate, and the peduncles axillary, bearing single blue flowers. The wood is exceedingly hard, so much so as frequently to break the tools employed in cutting it; of a pale yellow colour near the exterior, and blackish brown at the heart; specifically heavier than water; and is well known under the name of *lignumvitæ*. It is used for a variety of purposes, as for the wheels and cogs of sugar mills, for pulleys, bowls, and a variety of ornamental articles of furniture, as it is susceptible of a very fine polish. The tree has now become very scarce in Jamaica and St Domingo, large quantities having been cut down for exportation.

GUAMANGA; a town in Peru, the see of a bishop, whose diocese extends over several districts; lon. 77° 56′ W.; lat 12° 50′ N.; population stated at from 18 to 26,000. This city was founded for the conveniency of the trade carried on between Lima and Cusco. There are three parochial churches, one for the Spaniards and two for Indians, besides the cathedral and several other churches and convents. In it is a university, which has a large revenue, for the study of philosophy, divinity, and law.

GUANAHANI. See *Cat Island*.

GUANAXUATO; a state (formerly an intendancy) of Mexico, bounded N. by San Luis Potosi, E. by Mexico, S. by Mechoacan, and N. W. by Guadalaxara and Zacatecas; population, 382,829; fifty-two leagues long and thirty-one broad; square leagues, 911. It is the most populous state in Mexico, and is famous for its rich mines. It contains three cities, four towns, thirty-seven villages, and thirty-three parishes. The most elevated point of this mountainous country, according to Humboldt, is 9235 feet above the sea.

GUANAXUATO, or SANTA FE GUANAXUATO; a city of Mexico, capital of the state of the same name; 140 miles north-west of Mexico; lon. 100° 55′ W.; lat. 21° N.: population within the city, 41,000; and, including the mines surrounding the city, the buildings being contiguous, 70,600. It is situated in a narrow defile, hemmed in by mountains, the ground on which the city is built being 6836 feet above the sea. The streets are irregular, but the city is well built, and contains three convents, a college, two chapels, and five hermitages. The mines of Guanaxuato are the most productive in the world. The mines of the intendancy yielded, from 1796 to 1803, £9,500,000 in gold and silver; nearly £1,125,000 per annum; and nearly equal to one fourth of the whole quantity of the gold and silver produced in Mexico.

GUANCA VELICA, or HUANCA VELICA; a jurisdiction in the bishopric of Guamanga, in Peru. The town which gives name to this government was founded on account of the famous rich quicksilver mine, and to the working of it the inhabitants owe their subsistence.

GUANCA VELICA, a town of Peru, in the diocese of Guamanga, and capital of a jurisdiction of the same name; thirty miles north-west of Guamanga, 130 south-east of Lima; lon. 74° 46′ W.; lat. 12° 45 S.; population 5,200. It is 12,308 ft above the level of the sea. The buildings are of stone, more or less porous. It stands in a breach of the Andes, has a changeable and cold climate, and is one of the richest towns in Peru. This town is famous for its mines of mercury, also for its gold and silver.

GUARDS; troops whose particular duty is to defend the person of a civil or military ruler. In modern times, the term *guard* has been used to designate corps distinguished from the troops of the line by superior character, or only by rank and dress. The interest of the governors being often different from that of the governed, and the rulers being also often liable to be called to account for the evils suffered by the people, sovereigns have had guards from the most ancient times. The Assyrian and Persian monarchs had body guards, from whom the generals of the troops were taken. Alexander formed a guard of nobles, and many such have existed in modern times. These guards of Alexander were the sons of the noblest persons of the empire, and were divided into two classes. The inferior class guarded the exterior of the palace or tent, took care of the king's horses, &c. From among them were chosen the *hetæri*, or friends, who dined with the monarch, and in the field and at the chase, never left his side. Two of their number watched his bed-room. He promoted them to be generals; and several of them, after his death, became monarchs of those countries which, during his life, they had ruled as his governors. Still more like modern guards were the *argyraspides* (the silver-shielded), commanded by Nicanor, son of Parmenio. The *prætorians* (q. v.) were the guards of the Roman emperors, and ultimately had the greatest influence on their election, sometimes the entire control of it. In their licentiousness and political importance they resembled the janisaries, the guards of the sultan. In fact, in every real despotism, the tendency of the body guards is, to become the masters. (See *Janisaries*.) At a later period, the *trabants* and *hatschiers* (archers) guarded the persons of the Roman-German emperors; and similar troops were maintained at other courts. In the middle ages, distinguished persons, in turbulent cities, often had guards; at least, this was frequently the case in the larger cities of Italy, and, at one time, every cardinal had his own guard. The Corsicans were then employed for this service in Rome. But, until recent times, guards were merely destined to protect the person of the monarch or some distinguished person. When the interest of the monarch is different from that of the nation, it is safer to choose foreigners for body-guards, as not having any interest in the disputes between the two parties; hence the Scottish archers of Louis XI., and the Swiss of the Bourbons. In France, their number seems first to have been augmented by the ostentatious Louis XIV., the idol of monarchists. As his plan of government was to avail himself of the commons against the nobles, and of a standing army against the commons, the number and importance of the guards were much increased.

e *maison du roi* in his reign amounted to 8000 men, still retained more or less the character of house- d troops, that is, it was their duty to guard the per- and palaces of the kings. Most monarchs had ilar troops, and many of the smaller ones were dis- guished for the splendour of their guards. The ty princes of Germany had brilliant corps of Swiss, ydukers, &c. Frederic the Great led his battalion body-guards into the fire like other troops. He l several battalions of infantry and several squad- s of cavalry as guards; troops of distinguished rage and remarkable height. Height, at this time, considered one of the chief excellences of a sol- r. The guards were, therefore, to excel all other ops in this quality; and they were indeed a rare lection of giants. The Russian guards were more merous. In 1785, they amounted to 10,000 men. poleon's, however, were the finest guards, and ong the finest troops that ever existed. He re- es (in Las Cases's *Mémorial*, vol. 2, page 33, edit. 1824), that his narrow escape from being taken soner, in a castle on the Mincio, led to the establish- nt of troops whose destination was the personal ety of the commander. He called them *guides*: se were body-guards. When he became the head the government, and all Europe was arrayed against revolutionary principles of France, it was natural, re particularly after he had conceived the plan of establishing a hereditary throne, that he should sh to have a corps, which might serve, in every spect, as a model to his whole army, and which, at same time, would be particularly attached to n. He therefore instituted his consular guards, d, afterwards, the imperial guards, which formed complete *corps d'armée*, with artillery and cavalry, d of which he made use, in battles, only in decisive ments. He could confidently rely on them. They re the *élite* of the army: none were admitted who d been punished by a court-martial. In 1812, the perial guards consisted of one division of old guards ree regiments of *garde-grenadiers* and two regi- nts of *garde-chasseurs*) and two divisions of young ards, consisting of six regiments of *garde-tirailleurs*, regiments of *garde-voltigeurs*, one regiment of *rde-chasseurs*, one regiment of *garde-grenadiers*, e of *garde-flanqueurs*, each containing two bat- ions of 800 men. The cavalry consisted of grena- ers, dragoons, chasseurs, *chevaux legers*, *lanciers*, amelukes and gendarmerie *d'élite*. The artillery d 120 pieces of cannon. After the disasters of 12, the imperial guard was reorganised on the me basis. Every one knows how nobly the old ards left the stage of history on the field of Water- o. When Louis XVIII. was put upon the throne his brother, he abolished the imperial guards—a easure which according to some writers, he after- ards regretted—and, instead of them, the ancient ousehold troops, were again introduced, which had en, in part, abolished, even before the revolution the *gardes-du-corps*, the *gardes-de-la-porte*, the *Suisses*, the *mousquetaires noirs* and *gris*, &c., ost of them commanded by emigrants, two of the dies by Berthier and Marmont. The *cent Suisses* oked ridiculously in their dress, which appeared idiculous even before the revolution. But, after the undred days, real guards were established, and veral battalions of Swiss. The fate of both, in uly, 1830, is well known. (See *France*.) There e now no royal guards in France. In Britain, the ousehold troops or guards consist of the life-guards, e royal regiment of horse-guards, and three regi- ents of foot-guards. In Russia, the guards form a umerous corps, which, on the death of Alexander, nd previously, showed that many among them had he spirit which, as we have said, the guards of des- pots always have, more or less; though, at present Russia has nothing to fear from them similar to the conduct of the Strelits (q. v.), because even the Russian autocrat governs, in some degree, by means of laws. The Prussian guards form a whole *corps d'armée*. In Austria, the guards, though more numerous than formerly, are still merely body-guards of the sovereign, and therefore their number, is comparatively small. Noble guards, in which only sons of noblemen could serve, have sometimes been formed, a private in which had the rank of ensign. They have generally proved useless in moments when their services were needed.

Guards, National; an institution which has acquired historical importance, in the politics of France, and, according to all appearance, will now become more important than ever. It was desirable that the popular party, in the beginning of the revolution, should have forces on which they could rely, both for maintaining order, and resisting the attempts of the court party, in case it should be necessary; as, for instance, the court had early marched 30,000 men, under the duke de Broglie, towards Paris. July 13, 1789, after great disorders had occurred in Paris, and the day before the Bastile was taken, a municipal committee was formed in the *hôtel-de-ville*, to provide for safety and order. They invited the lieutenant of the police to advise with them; and, within a few hours, a plan was prepared for arming the citizens. The armed force was to consist of 48,000 men, to be drawn from the various electoral districts. They first adopted green as their colour, taking branches of trees as their badges; but, as it was remembered that this was the colour of the livery of the count d'Artois (afterwards Charles X., brother of Louis XVI.), who was highly unpopular on account of his arbitrary sentiments, it was abandoned; and it is commonly believed that the colours of the city of Paris (blue and red), were united with that of the king (white). But the origin of the tricolor is not quite certain. (See the article *Tricolor*.) The plan of arming a portion of the citizens was adopted with great readiness, because it was necessary to preserve order. This is the origin of the national guards, afterwards so important. On the 14th, the Bastile was taken; on the 15th, Bailly, president of the assembly, was made mayor of Paris, and the marquis de Lafayette commandant-general of the militia of Paris. June 12, 1790, the national assembly decreed that, to enjoy the rights of citizenship, it was necessary to be a member of the national guard. September 29, 1791, a degree was issued for the organization of the national guards. A standing municipal and departmental national guard was herewith established, to be raised by voluntary enlistment, in the proportion of one to every twenty citizens; they chose their own officers, and received pay, arms, and uniform. The solemn declaration of the general assembly, December 29, 1791, that the French nation renounces all wars of conquest, and will never employ its arms against the liberty of any nation, was connected with this measure. In May, 1792, the number of the battalions of the departmental national guards was fixed at 216. But the measures of Austria and Prussia, as well as the arming of the emigrants on the frontier, obliged the French government to assume a military attitude; and the national guards became a great support to the army, by diffusing a military spirit throughout the nation, and training many individuals, who afterwards joined the army. October 5, 1795 (13 Vendémiaire), Bonaparte, acting under Barras, led the troops of the convention against the national guards of the sections of Paris, who had declared against the system of terrorism.

In consequence of the events of this day, the staff of the national guard of Paris was dissolved, October 8, and the command conferred upon the commander-in-chief of the army of the interior; and thus the genuine national guard, a militia, under the civil authorities, destined to maintain order, was abolished. Some months later, the directory introduced movable columns, in lieu of the stationary departmental guards. August 12, 1797, the two legislative councils gave the national guards a new organization, of which Napoleon retained the essential features, but adapted to his military policy. Numerous legions were formed, which watched the coasts and fortresses on the frontiers, or served in the interior, whilst a numerous *gendarmerie*, entirely distinct from the national guards, formed a powerful and active police, with a military organisation. In 1810, Napoleon formed a regiment of four battalions of the national guards, which had distinguished themselves on the occasions when the British had landed. This regiment was called the *national guards of the guards*. March 13, 1812, Napoleon issued the decree for the formation of the national guards in three *bans*, as they were called, of which the first comprised all men capable of bearing arms, from twenty to twenty-six years of age; the second, all able-bodied men from twenty-six to forty years; the third, or *arrière ban*, all men fit for service, from forty to sixty years. Of the first ban, he called out 100 cohorts, of 1000 men each, for active service, who were not to fight beyond the frontiers; but in 1813, they declared, at least a part of them, their willingness to serve beyond the frontiers. The correspondence between Napoleon and Joseph, his brother, just before the entrance of the allies into Paris, showed that the emperor still relied on the national guards for the defence of the capital; but the want of arms, the defection of the highest civil and military officers, and, more than all, the aversion of the people to a continuance of the struggle, prevented such a measure. After the restoration of the Bourbons, the government endeavoured to make the national guards dependent upon itself. *Monsieur* (the brother of the king) was appointed commander-in-chief of all the national guards of France. The guards were not allowed to choose any of their officers (see *France*, in 1818); but, in 1818, the staff of the national guards was dissolved, and *Monsieur* resigned the chief command. The national guards were again put under the prefect and the minister of the interior. April 29, 1827, the national guard of Paris, on an occasion when it was reviewed by the king, having ventured to demand the removal of the ministry (that of Villele, see *France*), and the banishment of the Jesuits, was dissolved on the 30th. It was revived at Paris, during the memorable days of July 1830. July 30, general Lafayette was appointed, by the provisionary government, commander-in-chief of the national guards, in which office he was confirmed by king Louis Philip, receiving at the same time, the marshal's staff. The new charter "intrusts the charter and and the rights which it consecrates to the patriotism and courage of the national guard and all the citizens" (article sixty-sixth); so that, it would seem, the national guards have become a fundamental institution of the kingdom, and cannot again be constitutionally abolished. Complaints have been made, that the command of this immense power is left in the hands of one man, and that the national guards are not, as formerly, a municipal force for the maintenance of order. An ordinance of October 9, 1830, re-organises the national guards. They are divided into movable and stationary; the first, composed of men from twenty to thirty years of age, inclusive, and only to be called into service by a law, or, while the chambers are not in session, by ordinance, which must become a law during the next session, is to be "an auxiliary of the army for the defence of the territory,—the guard of the frontiers to repel invasion, and maintain public order in the interior." Corporals, subalterns and sub-lieutenants are to be elected by the members; the other officers are to be appointed by the king. When this body is organised, the members are subject to military discipline; yet, when the national guards refuse to obey orders, or leave their corps without authority, they are to be punished only by imprisonment, not to exceed five years. The Prussian *Landwehr* is something similar, but more military in its organisation, without the privilege of choosing officers, and subjected to an absolute military discipline. (See *Militia.*) The citizen guards established in Belgium during the revolution of the year 1830, were an imitation of the French national guards.

GUARINI, Giovanni Battista, born at Ferrara 1537, was descended from a noble family, distinguished for its influence on the revival of learning and poetry. After having studied in Ferrara, Pisa and Padua, and lectured, in his native city, on the ethics of Aristotle, he entered the service of the duke Alphonso II., who appreciated his talents, knighted him, and sent him as his ambassador to the Venetian republic, to Emanuel Filibert, duke of Savoy, to Gregory XIII., Maximilian II., and Henry of Valois, who was chosen king of Poland; and, when the latter ascended the throne of France under the name of Henry III., Guarini was sent to the Polish estates to propose the duke as a candidate for the throne of Poland. The failure of this embassy, which involved the sacrifice of a part of Guarini's own property, was taken advantage of, by his jealous rivals, to deprive him of the favour of his prince; and, after all his services he was dismissed. He now passed his time in literary retirement, partly in Padua, and partly on his own estate, but was recalled, in 1585, to the office of secretary of state. He again attained a distinguished rank in the court, but, two years after, retired a second time, because the duke, in a dispute between Guarini and his daughter-in-law, gave a decision which displeased him. He then continued some time in private life. In 1597, he entered the service of Ferdinand I., grand-duke of Tuscany, which he soon quitted. Suspecting that the duke had favoured the marriage of his youngest son, which had been concluded privately, against Guarini's will, he left his court, and retired to that of the duke of Urbino. After some time, he returned to Ferrara, but resided alternately at Venice, Padua and Rome, on account of the numerous lawsuits in which his litigious spirit involved him. In 1605, he went as ambassador of his native city to the court of Rome, to congratulate Paul V. on his elevation. He died at Venice, in 1612. Guarini is one of the most elegant authors and poets of Italy, as is shown by his letters, his *Segretario*, a dialogue, his comedy *L'Idropica*, his *Rime*, and, above all, by his *Pastor fido*. This pastoral drama, which was first represented at Turin, on the marriage of Charles Emanuel, duke of Savoy, with Catharine of Austria, and afterwards frequently brought upon the stage, and translated into many languages, has rendered him immortal. The slightest glance shows that this piece is by no means an imitation of the *Aminta*, to which it is superior in ingenuity, epigrammatic turns and poetical ornaments—characteristics which have brought upon it undeserved reproach, as being ill adapted to the pastoral drama. Guarini's works appeared at Ferrara, in 1737 (four volumes, 4to). His *Trattato della poetica Libertà* (written about 1599) was first printed at Venice, in 1818, with his life by Ruggieri.

GUASTALLA; a duchy in Upper Italy, on the in the Austrian dominions, and the duchy of dena, containing thirty-three square miles, with 0 inhabitants. Its chief place, of the same name, he Crostolo and Po, contains 5500 inhabitants. astalla formerly belonged to the dukes of Mantua. e line becoming extinct in 1746, it was given to ma, and, in 1795, was comprised, with all the ainions of this house, in the Italian republic. In 5, it was annexed to the duchy of Parma, and en to Maria Louisa, wife of Napoleon, as duchess Parma.

GUATIMALA (for an account of the country of s name, see *Central America*). Guatimala is also largest of the five states of the republic of Central erica, formed from the old captain-generalship of same name. It lies in the north-western part of republic, bordering on Mexico, the gulf of Honras, and the Pacific ocean. It is divided into four*n partidos*.

GUATIMALA, LA NUEVA *(the New)*; seat of federal government of Central America, archiscopal see, situated on the river Vacas, near the cific ocean, with a good harbour; lat. 14° 40′ N.; 91° 25′ W. In April, 1830, it was nearly deyed by an earthquake. Previous to this, the inbitants were about 40,000; the houses were hande, but built low, on account of the frequency of rthquakes; the streets broad, and the numerous urches and public buildings distinguished for their egance. It was founded in 1775, in consequence the destruction of the old city by an earthquake.

GUAVA *(psidium)*; a genus of plants, allied to e myrtle, containing nearly forty species, natives of e intertropical parts of America, with one or two ceptions. They are trees or shrubs, with opposite ntire leaves, and axillary white flowers. The *P. pyiferum* attains the height of eighteen or twenty et, and is now cultivated in all the intertropical rts of the globe, for the sake of its fruit, which has sweet, agreeable flavour, and is considered very holesome. The young branches of this tree are uadrangular; the leaves, oval-acute, and the fruit haped like a pear, and about as large as a pullet's gg, yellow without, with a fleshy pulp, and is eaten ther in a crude state, or in the form of jellies. The ood, which is very hard, is much used for various echanical purposes, as also for burning, and makes xcellent charcoal. This tree has been cultivated, with complete success, in the south of France.

GUAXACA, or OAXACA; a state of Mexico, situated between Puebla and Guatimala, about 240 miles in length and 120 in breadth. The soil is fertile, producing corn, maise, cocoa, cochineal, sugar, honey, and fruits of every kind. Here are mines of gold, silver and crystal. Mulberry trees, for the cultivation of silk, have been introduced by the Spaniards. There are 150 Indian towns, besides 300 villages and upwards of 150,000 natives, who are tributary to the Spaniards. Population, 534,000.

GUAXACA; a town in Mexico, capital of the state of the same name; 90 miles S. by W. of Vera Cruz, 195 miles S. S. E. of Mexico; lon. 98° 36′ W.; lat. 17° 30′ N. Population in 1792, 24,000. This town, also called *Antequera*, is the see of a bishop. It is agreeably situated in a valley, on a river abounding with fish, which runs into the Alvarado.

GUAYAQUIL, a province of Colombia, in New Granada, lies along the Pacific ocean, on the Guayaquil river, and on the north side of the gulf of the same name. Population, about 90,000. Staples, cocoa, cotton, tobacco, salt, wax, rice and honey.

GUAYAQUIL; a city of Colombia, and capital of the province of the same name, on the West side of Guayaquil river. It possesses an excellent seaport. Ship-timber abounds in the vicinity, from which many vessels have been built. It is 150 miles S. S. W. of Quito; lon. 79° 56′ W.; lat. 2° 11′ S.

GUAYAQUIL BAY, or GULF, extends from cape St Helena to Pontade Picos, upwards of 100 miles, and, extending inland, in the form of a triangle, receives, at its head, Guayaquil river. The gulf is chequered by numerous islands, one of which, Puna, is of considerable size.

GUDGEON (*gobio*, Cuv.). These fish are distinguished by having the dorsal and anal fins short, and without spines. At the angle on each side of the mouth, there is a small beard of a quarter of an inch in length. Neither jaw is furnished with teeth, but, at the entrance of the throat, there are two triangular bones, that perform the office of grinders. These fish are taken in gentle streams, and are generally of small size, measuring only about six inches. They are brought together by raking the bed of the river, which makes them crowd in shoals to the spot, expecting food from this disturbance. They are spoken of by Aristotle; and old Willoughby says that they are preferred, by the English, to every other river fish.

GUEBERS, or GUEBRES, or GAUERS (i. e., infidels); the fire-worshippers in Persia; in India called *Parsees*. They call themselves *Behendie*, or followers of the true faith, and live chiefly in the deserts of Caramania, towards the Persian gulf, and in the province Yerd Keram. These people, who are but little known, are laborious and temperate cultivators of the ground. The manners of the Guebers are mild. They drink wine, eat all kinds of meat, marry but one wife, and live chastely and temperately. Divorce and polygamy are prohibited by their religion; but if a wife remains barren during the first nine years of marriage, the husband may take a second wife. They worship one Supreme Being, whom they call the *Eternal Spirit* or *Yerd*. The sun, moon and planets they believe to be peopled with rational beings, acknowledge light as the primitive cause of good, darkness as that of evil, and worship fire, as it is said, from which they have received their name. But they themselves say, that they do not worship fire, but only find in it an image of the incomprehensible God; on which account they offer up their prayers before a fire, and maintain one uninterruptedly burning on holy places, which their prophet Zoroaster they say; kindled 4000 years ago. Their holy book is called *Zend-Avesta*. One of the peculiarities of the Guebers is, that they do not bury their dead, but expose the bodies upon the towers of their temples, to be devoured by birds. They observe which part the birds first eat, from which they judge of the fate of the deceased.

GUELFS, or GUELPHS (from the Italian *Guelfi* and the German *Welfen*); the name of a celebrated family, which, in the eleventh century, was transplanted from Italy to Germany, where it became the ruling race of several countries. The family still continues in the two lines of Brunswick, the royal in Britain, and the ducal in Germany. According to Eichhorn's *Urgeschichte des Hauses der Welfen*, this house first appears distinctly in the ninth century, in the reign of Charlemagne. The memory of this ancient name has lately been revived by the foundation of the Hanoverian Guelfic order. (See *Hanover*.) The term *Guelf* is also applied to a powerful party in the middle ages, which, in Germany, and, at a later period, in Italy, opposed the German emperors and their adherents, called the *Ghibelines*. (See Frederic von Raumer's *Geschichte der Hohenstaufen*, Leipsic, 1823. The family of the Guelfs, in different branches, possessed considerable estates in Germany,

in the eleventh century. Azzo, of the family of Este in Italy, lord of Milan, Genoa, and other cities of Lombardy (died in 1097), acquired some of these estates by his marriage with Cunigunde, the heiress of the Guelfs. His son, Guelf I. (died 1101), became duke of Bavaria, and inherited the estates of the other Guelf lines. The son of Guelf I. acquired, by marriage, the estates in Saxony which belonged to his wife's father, duke Magnus. The emperor Lothaire gave (1137) the duchy of Saxony to his son-in-law, Henry the Generous, grandson of Guelf I. This Henry, on the death of Lothaire, opposed Conrad III., of the house of Hohenstaufen, who had been elected emperor, was put under the ban of the empire, and most of his vast possessions confiscated. After his death, his son, the famous Henry the Lion, received, in 1139, only the duchy of Saxony, and his hereditary estates in this country, the Bavarian fiefs having been given to his uncle Wolf. In 1140, war having broken out between Wolf and Frederic, brother to the emperor Conrad, the words *Welf* and *Waiblingen* became the war-cries of the respective parties in the battle at Weinsberg. Waiblingen, in the present kingdom of Wurtemberg, was an estate of the house of Hohenstaufen to which Conrad belonged, and the Italians afterwards changed the word (as *w* is often changed into *g*,) into *Ghibellini*. The contest, which, in the beginning, was merely between the two families, spread, at length, more and more widely, and became an obstinate struggle between two political parties. This contest was not a mere family quarrel, like many of the disputes of the middle ages. It was a strife of opinions, involving important interests, conducted, it is true, in many instances, with a senseless disregard both of justice and expediency, owing to the crude notions of the period respecting the rights and wellbeing of nations, but still having great objects in view. The wars of the Guelfs and Ghibelines became the struggle between the spiritual and secular power, through which it was necessary that western Europe should pass, to shake off the dominion of the popes, which was now on the point of crushing all national independence, after having completed its proper work of raising Europe from a state of barbarism. (See *Gregory VII.*) The popes, who endeavoured to reduce the German emperors to acknowledge their supremacy, and the cities of Italy, struggling for independence, and deliverance from the oppressive yoke of these same emperors, formed the party of the Guelfs. Those who favoured the emperors were called *Ghibelines*. Italy underwent great sufferings during this contest, as did Germany also, which sent army after army to be swallowed up in this lion's cave whence none returned, as a German emperor called it. There is little doubt that the inconsiderable progress of Germany in public law and political wellbeing was, in a great measure, owing to this struggle, which consumed her strength and engrossed her attention. The contest continued, with bitterness, for almost 300 years. These parties appeared in Italy under many different names, as the *bianchi* and *neri* (white and black), in Florence, &c. History shows no instance of a more untiring and cruel party spirit.

GUERCINO; (Giovanni Francisco Barbieri da cento), called Guercino from a squint in his eyes; was born at Cento, in the duchy of Ferrara, in 1590, and studied at first under Cremonini and Benedetto Gennari; but latterly in the school of the Caraccis, at Bologna. He adopted three different manners of painting, the first in imitation of Caravaggio, which being very dark, he quitted for that of the Caraccis, and latterly for a style still more light and sketchy; but his middle style is his best. His chief pictures are at Rome, particularly that of Aurora in a saloon of the Villa Lodovisi, and the Martyrdom of saint Petronilla, which has been copied in mosaic to adorn one of the pannels in saint Peter's, between the transfiguration by Raffaelle, and the communion of St Jerome, by Domenichino. During his lifetime he enjoyed a very high reputation, and amassed a large fortune, which he employed in assisting his parents and friends, in giving his nephews and nieces a good education, and settling the former in the church, and the latter advantageously in marriage. He was extremely pious, and built several chapels and oratories. He died in 1667, aged seventy-seven years.

A vigorous style of colouring, but which is rather red and monotonous, and with a blackish and raw tinge, and a daring sort of handling full of fire and truth, are the leading characters of his originality. He belongs to that class of painters who constantly finished every object from nature, and copied their living models, exactly as if they had been making their portraits, without paying sufficient attention to the action of the piece in which they are made performers; so that he must be placed amongst those in whose works we recognise rather the actors than the personages represented. Still his pictures have an aspect very different from those of Michael Angelo, Caravaggio, Spagnoletti, or Valentin, or Alexander Veronese; although all these artists seem to have painted much in the like manner. He composed rather with great facility than much sublimity, and made rather a display of the rules of his art, than of his feeling or enthusiasm. So that whatever there may be of fire in his manner of executing, there seems to be but little of it in his conceptions. Nevertheless, his devotional subjects frequently display dignity, and much of the zeal and pious turn of their author. Sometimes, too, there is an expression mingled with dignity and loftiness of character; but these are not the most striking features of their character, nor do they seem to have been those which were uppermost in his mind at the time of their production. For the whole energy of the painter seems to have been expended in the imitation of nature. Still, with all his faults, it must be confessed that he stands amongst the first-rate painters of Italy. Jacob Frey, Sir Robert Strange, and Bartalozzi, have engraved many of his best works, and there are two folio volumes of his drawings engraved by the last named artist, which are exceedingly beautiful.

GUERICKE, Otto von, burgomaster of Magdeburg, was one of the most distinguished experimental philosophers of the seventeenth century. He was born at Magdeburg, November 20, 1602; studied law at Leipsic, Helmstadt, and Jena; mathematics, and particularly geometry and mechanics, at Leyden; travelled in France and England; acted as chief engineer at Erfurt; became, in 1627, counsellor at Magdeburg; and in 1646, burgomaster and counsellor of the elector of Brandenburg. He resigned his office five years before his death, and repaired to his sons at Hamburg, where he died May 11, 1686. In 1650, he invented the air-pump, about the time that a similar idea occurred to Robert Boyle, in England. This discovery changed the whole aspect of natural philosophy, and gave rise to a more intimate acquaintance with the nature and effects of air. In 1654, he made the first public experiments with his machine, at the diet at Ratisbon, before the emperor Ferdinand III., his son Ferdinand IV., king of Rome, several electors, and other estates of the empire. The first air-pump with which Guericke almost exhausted the air from two hemispheres, is preserved in the royal library at Berlin. Guericke also invented an air-balance, and

he small glass figures, which were used before the nvention of the barometer (q. v.), to show the ariations of temperature. The pressure of the tmosphere he exhibited by means of two large hol- ow hemispheres of copper and brass, an ell in dia- neter. These being fitted closely together, the ir contained in the hollow sphere thus formed was xhausted by means of an air-pump. Guericke then arnessed horses to strong rings, attached to the emispheres, and they attempted in vain to separate hem. The number of horses was increased to thirty ithout success. An additional number at length ade them part with a loud report. He was also n astronomer. His opinion, that the return of omets might be calculated, has been confirmed. is most important observations, collected by him- elf, appeared at Amsterdam, in folio (in 1672), en- itled *Experimenta nova, ut vocant Magdeburgica, de acuo Spatio*, &c. See *Air-Pump*.

GUERILLAS (Spanish diminutive of *guerra*, ar), in the war for Spanish independence, was the ame of the light, irregular troops, who did much njury to the enemy, while their disconnected char- cter and active movements secured them from suf- ering much in return. They consisted chiefly of easants, who, in the ardour of patriotic zeal and eligious fanaticism, having put to death such French- nen as fell into their hands on the first retreat of the rench forces, fled to the mountains, on their return, o avoid their resentment, collected in numbers, hose leaders, and carried on a partisan warfare, ithout being paid or dressed in uniform. They ppeared sometimes in small bands, sometimes to the umber of 1000, hanging on the outskirts, picking ff single soldiers, attacking small detachments, in- ercepting couriers; and it was with difficulty that he French could keep up any communications. The eneral Juan Martin Dias, surnamed *El Empecinado*, irst organised them with some system, in the icinity of Madrid, after Saragossa had been taken y the French (1808), and Spain, by the defeat of its rmies, seemed lost beyond recovery. Romana, owever, extended the plan much farther. They ontributed to sustain the confidence of the people n the final success of their arms, and to maintain a pirit of determined resistance. They fought even o the capital, which was occupied by the enemy. t was a no less important circumstance, that every dvantage gained by the Spanish and British troops as proclaimed, by their means, in all quarters, with he rapidity of lightning, and often, of course, with reat exaggerations. Sir Robert Wilson had like- ise a great influence in the organisation and success f the guerillas.

GUERNSEY, an island in the English Channel, ear the coast of Normandy and Brittany, lies in fount St Michael's bay, a spacious gulf formed by ape La Hogue in Normandy and cape Frehille in rittany; in 49° 13′ N. lat.; 2° 40′ W. lon. This eautiful island is nine miles in length and about irty in circumference. It is abundantly watered, ough, from its limited size, none of the streams are onsiderable. The soil throughout is rich and fertile, d yields very fine pasture. The cows are much teemed, yielding abundance of excellent milk. A reat number of them are yearly exported to Eng- nd. Vegetables are also excellent, and in great ariety. Timber, with the exception of the elm tree, not lofty, but luxuriant. Most kinds of fruits and owers grow in profusion; and so genial is the cli- ate, that myrtles and geraniums flourish in the open round, and the more hardy species of the orange ee, the Seville, will fructify with very little shelter winter. Thousands of that beautiful flower, the uernsey lily, are exported yearly to England and France. The fig tree attains great luxuriance, and sometimes reaches a remarkable size. The aloe tree frequently blossoms here. One of the most useful vegetables is a marine plant, called *varec*, which is used both for fuel and manure. Both the judicial and executive authorities are exercised by a body called the *royal court*, composed of twelve jurats, the procureur or attorney-general, and the comptroller or solicitor-general. But the task of raising money to defray public expenses, is committed to what is called the *states of deliberation*—a political body composed of the governor for the time being, the bailiff, twelve jurats, and the procureur, the eight rectors of the ten parishes, and the united voices of the constables of each parish, the total number of voters being thirty-two. Application must, however, in certain cases, be made to the king, for permission to carry into effect the levies proposed by this body. Guernsey is divided into ten parishes, the churches appertaining to which were consecrated between the years 1111 and 1312. Dissenters, more particularly the Calvinists and Methodists, are very numerous, and have several chapels. The Roman Catholics are few. The society of Friends or Quakers are rather increasing in number. Steam vessels and sailing packets ply daily between Portsmouth, Plymouth, Southampton, and many other ports of England, to this island; there is also a constant water communication kept up between this and the opposite French coast. The only town of Guernsey is called St Peter's Port, which is built on the eastern coast of the island. The inhabitants of Guernsey are more French than English in their character; their language is a corruption of the old Norman, very few being able to speak English. Population about 20,000. The most recent account of Guernsey is to be found in the late Mr Inglis's work, entitled "The Channel Islands."

GUERRERO, Vicente, president of the United Mexican States, was a Creole by birth, and is said also to have been partly of Indian extraction. He took arms against the royalists at the very commencement of the revolution in Mexico, and never ceased to occupy a prominent position in the affairs of that country. In 1819, after Hidalgo, Morelos, and Mina had successively fallen victims to their zeal in the cause of independence, and the patriots, being unsuccessful everywhere, were captured, cut up, or dispersed, Guerrero continued in arms in the province of Valladolid, at the head of a formidable guerilla in the Tierra Caliente. The publication and general adoption of the terms of accommodation between the Mexicans and Spaniards, proposed by Iturbide, known as the plan of Iguala, and the new impulse thus imparted to the revolution, gave employment and importance to Guerrero once more, until the usurpation of Iturbide placed him in opposition to all the steady republicans. When Santa Anna raised the standard of revolt in 1823, and the success of the insurgents under him and Victoria gave the republicans a chance of overturning the mushroom emperor, Guerrero, with Bravo, fled from Mexico in secret, and placed himself at the head of a body of troops in the west. The result of all these movements was the dethronement of Iturbide, the adoption of the constitution of 1824, and the election of Victoria as president, and Bravo as vice-president of the Mexican States. In the organisation of political parties which ensued, general Guerrero became the rallying point of the liberal or popular party, the Yorkinos, and was also repeatedly called into active service in his military capacity, by reason of the civil troubles which the anxious impartiality of president Victoria rather tended to augment than to moderate. In 1827, Guerrero was despatched to Vera Cruz, to put down

the disorderly movement of colonel Rincon, and quelled the rebellion without a struggle. In Dec., 1827, don José Montano, a colonel in the army, set afoot at Otumba an insurrection for the forcible reform of the government, in order to counteract the influence of the Yorkino party. In January following, general Bravo, the vice-president, who was the leader of the Escoceses, or the aristocratical party, left Mexico, in order to join the rebels, and stationed himself at Tulancingo, where he issued a manifesto declaring himself in favour of the views of Montano. To suppress this insurrection, general Guerrero was hastily despatched at the head of a large force, to which Bravo and his associates surrendered with little or no resistance. The Yorkinos were now triumphant. Bravo was banished from the republic; and Guerrero, as the most prominent individual of the successful party, was universally looked upon as the probable successor of Victoria in the presidency. But the Escoceses, and the Mexicans of Spanish birth, who all belonged to that party, and who knew that their expulsion would be the immediate consequence of the government's being placed entirely in the hand of the Yorkinos, rallied all their strength to turn the scale against Guerrero. Nothing could exceed the disappointment of the friends of the latter, when the election of September, 1828, took place, and it appeared that don Gomes Pedrasa, the secretary of war, had the votes of ten states, while only eight declared for Guerrero. It appears that many moderate men of the Yorkino party united with the whole body of the Escoceses to produce this result. Pedrasa had been an active partizan of the Yorkinos, and had been particularly active and instrumental in putting down the insurrection of Otumba, and with it Bravo, the hope of the Escoces party. Nevertheless, being deemed more moderate in his political principles than Guerrero, the Escoceses threw their votes for him, as their last resource, to prevent the introduction of a radical and proscriptive administration, which they knew would come, if Guerrero should be elected. The Yorkinos loudly exclaimed against the election of Pedrasa, as having been effected by bribery and military violence. In a country of stable laws and well organised government, the defeated party would have awaited the result of a constitutional inquiry into the legality of the election. But in Mexico they order things otherwise. The Yorkinos determined to resort to arms to prevent the elevation of Pedrasa to the presidency; and general Santa Anna, who, since the fall of Iturbide, had been living in comparative retirement at Jalapa, seduced a small body of troops, marched to Perote, and gained possession of the castle, before the government were well aware that another civil war had broken out. Here he issued a manifesto, proposing that the people and army should annul the election of Pedrasa; that Guerrero should be declared president; and that the Spanish residents should be expelled from Mexico. When information of these incidents reached the government, Santa Anna was denounced as a rebel, and a force was sent against him, which he found himself unable to withstand, and retired into the mountains of Oaxaca. But meanwhile measures were secretly planning in the capital for a more decisive movement in favour of Guerrero. It was discovered by the executive that don Lorenso de Zavala, the governor of the state of Mexico, was in correspondence with Santa Anna. He was arrested, but found means to escape. Soon afterwards, a battalion of militia, aided by some troops of the line, took possession of the artillery barracks, called the *acordada*, situated on the outskirts of the city, and, being joined by general Lobato, by Zalvala, and by other persons of distinction, announced their intention to annul the election of Pedrasa, and to force the government to expel the Spaniards. But as the constitutional authorities were resolved not to give up the point without a struggle, a violent contest ensued, in some of the principal streets of the city, during the three first days of December, in which many persons were killed on both sides. At length Guerrero openly joined the insurgents, with a reinforcement of his friends; on which Pedrasa left the city, and, on the 4th, president Victoria agreed to a partial accommodation. (See *Mexico*.) Victoria was obliged immediately to appoint a cabinet favourable to the insurgents, including Guerrero himself as secretary of war. Finally, when the national congress assembled in January, some of the votes given for Pedrasa, were pronounced to have been illegally obtained, and Guerrero was declared to be regularly elected president, with Anastasio Bustamente as vice-president. The new magistrates were inducted into office in April 1829, soon after which the expedition of Barradas gave employment to the government, and a subject of engrossing interest to the people. The better to enable the president to meet the exigency, he was invested with extraordinary power, but after the victory over the Spanish troops, and when the invading expedition was destroyed, Guerrero evinced an unwillingness to relinquish the dictatorship, which became the cause or pretext of another revolution. He had previously abolished slavery, September 15, 1829, the anniversary of Mexican independence, with a promise of indemnity to the proprietors when the resources of the government permitted it. Bustamente, the vice-president, took command of the army of reserve stationed at Vera Cruz, and commenced his march towards Mexico, for the purpose of reforming the government by force. Guerrero left the city to meet him; but no sooner was he gone, than the troops in Mexico revolted, and declared for Bustamente; in consequence of which, Guerrero, and the other leaders of the *acordada* revolution, resigned their offices, and Bustamente assumed the reins of government. He was not destined, however, to continue in the tranquil exercise of power. Disturbances soon broke out afresh, and in September, 1830, Guerrero collected a large force in Valladolid, and established a form of government in opposition to that of Bustamente, and the whole country was agitated by troops in arms, in different parts and under various chiefs, for the purpose of either preventing or effecting the reinstatement of Guerrero. In February, 1831, Guerrero was taken in arms against the government, and shot.

GUESCLIN, Bertrand du, constable of France, a man renowned for talent and courage, was born about the year 1314, at the castle of Motte-Broon, near Rennes. The poets derive the origin of his family from a king of the Moors. Like most of the nobles of his time, he could neither read nor write. From childhood, he longed but for war and for battle. He united his young companions into a regiment, made himself their general, and, dividing them into companies, taught them to form in order of battle. According to the descriptions which remain of him, he was of a vigorous frame, with broad shoulders and muscular arms. His eyes were small, lively, and full of fire. His face had nothing pleasing in it. "I am very ugly," said he when a youth; 'I can never please the ladies; but I shall at least know how to make myself terrible to the enemies of my king." He rose entirely through his own exertions. At the age of seventeen, he won the prize at a tournament at Rennes, where he had gone against the will and without the knowledge of his father. From this time he was always in arms. After the disastrous battle

of Poitiers, in 1356, he came while king John was yet a prisoner, to give assistance to his eldest son, Charles, who then held the regency. Melun surrendered; those of his party obtained their freedom, and many other towns yielded to him. Charles V., who, in 1364, had succeeded his father, rewarded in a suitable manner the services of Guesclin, who, in the same year, gained a victory at Cocherel over the king of Navarre. These successes hastened the peace. He next supported Henry, who had assumed the title of the king of Castile, against his brother, Peter the Cruel. He deprived this prince of his crown, and secured it to Henry, who rewarded him with a large sum of money, and raised him to the dignity of constable of Castile. Bertrand soon after returned to France, to defend his country against England. The English, hitherto victorious, were now every where beaten. Advanced to the rank of constable of France, he attacked them in Maine and Anjou, and even made their leader prisoner. He brought Poitou and Saintonge under the dominion of France, so that the English retained only Bourdeaux, Calais, Cherbourg, Brest, and Bayonne. He died in the midst of his triumphs, before Chateau-neuf-de-Randon, July 13, 1380. His body was buried with royal honours, near the tomb which Charles V. had designated for himself. France, since him, has had, among her many generals, but a single one who can be compared to him,—Turenne. Both were equally brave, modest, and generous. Du Guesclin was twice married, but left no children, except a natural son, Michael du Guesclin.

GUEUX (*beggars*). This title was, in the time of Philip II., under the government of the blood-thirsty duke of Alba, given to the allied noblemen, and the other malcontents in the Netherlands. In 1654, Philip sent nine inquisitors there, to execute the decrees of the council of Trent, and occasioned thereby a great excitement among both Protestants and Catholics. The nobles bound themselves by a compact, known under the name of the *compromise*, not to appear before the nine inquisitors, and, in solemn procession, made known their resolution, in 1565, to Margaret, duchess of Parma, then at the head of government. Their declaration was received with contempt. The princess, during the audience, happening to show some embarrassment, the earl of Barlaimont, president of the council of finance, whispered to her that she ought not to manifest any fear of such a mob of beggars (*tas de gueux*). Some of the confederates overheard this, and on the evening of the same day, communicated it at a meeting of their members, who immediately drank to the health of the *gueux*, and agreed thereafter to be called by that name.

GUEVARA, Louis Valez de las Duenas y, a Spanish dramatic poet, was born at Ecija in Andalusia, in 1574. He applied himself to the study of the law, and lived as a lawyer in Madrid. By his inexhaustible fund of humour, he often excited the laughter of his numerous hearers, and of the judges, even in the most serious causes. It is related of him, that by this means he once saved a criminal from death, and obtained the acquaintance of the king (Philip IV.). The monarch, who knew his talent for poetry, induced him to write comedies. Philip IV. himself sometimes wrote pieces, which were given to Guevara, to revise, and afterwards often exhibited at court.) In this new career Guevara obtained no small success. His pieces deserve, for their excellent delineations of character, and their richness in strokes of genuine comic humour, the praise which Lope de Vega has given them. That, however, which especially established the poetical fame of Guevara, was his *Diablo Cojuelo, o Memorial de la otra Vida*, a romance written with equal elegance and wit; in which the poet describes with great humour and spirit, and lashes with inimitable satire, the manners of his countrymen and life in Madrid. This Spanish romance afforded the idea of Le Sage's famous *Diable Boiteux*. It was literally translated into French (by the author of *Lectures amusantes*), and into Italian. Guevara died at Madrid in January, 1646, at the age of seventy-two, to his last day enjoying the favour of the monarch, and to his last day a warm, and often extravagant admirer of the other sex. Many of his witty sayings have become familiar to the people in his country, and to this day are often heard as proverbs in Spain. There are several other Spanish poets of the same name.

GUGLIELMI, Peter, was born in 1727, at Massa Carrara, where his father, Giacomo Guglielmi was chapel-master of the duke of Modena. He studied music with his father until his eighteenth year, and afterwards went to Naples to the conservatorio di Loretto, then under the direction of the celebrated Durante. Guglielmi showed little taste for music, but Durante kept him to the study of counterpoint and of composition. He left the institution in his twenty-eighth year, and immediately began to compose comic and heroic operas for the Italian theatre. In each he was equally successful. He was invited to Vienna, to Madrid, and to London, and returned to Naples about the fiftieth year of his age. Here he made a most brilliant display of his talents. Two masters, Cimarosa and Paesiello had taken possession of the great theatre in Naples, and contended for the palm. He took a noble revenge upon the latter, of whom he had some cause to complain. To every work of his adversary he opposed another, and was always victorious. In 1793, Pius VI. named him chapel-master of St Peter's, which gave him an opportunity of distinguishing himself in sacred music. He has left more than 200 pieces, remarkable for their simple and beautiful airs, for their clear and rich harmony, and for their spirit and originality. He died in 1804, in his seventy-seventh year. His son, Peter Charles, is likewise a distinguished composer.

GUIANA; a country of South America. This name was formerly given to the country extending from the Orinoco on the north to the Amason on the south; but the part called *Spanish Guiana* now forms a province of Colombia, and *Portuguese Guiana* now belongs to Brasil. The rest of the country belongs to the British, Dutch, and French. British Guiana contains three small colonies, viz., Essequibo, Demerara, and Berbice. The principal town is Stabroek. Dutch Guiana, often called *Surinam*, is watered by the river Surinam. Parimaribo, the capital, is a pleasant town. French Guiana, called also *Cayenne*, is noted for producing the Cayenne pepper. Cayenne, the capital, is situated on an island. Guiana is of a mild climate for a tropical country. Along the sea shore, and for a considerable way into the interior, the country is an extensive and uniform plain of unequaled fertility. In the interior, it rises into mountains, which frequently contain a great variety of mineral substances. Rich and fertile valleys are interspersed throughout these mountainous tracts. These uncultivated parts are covered with immense forests, which are intersected with deep marshes, and by extensive savannas or plains covered with luxuriant herbage. The country is watered by the tributary streams of the Orinoco and the Amason. Guiana is overspread with the most luxuriant vegetation, abounding in the finest woods, in fruits of every description, and in an infinite variety of both rare and useful plants. Many of the trees grow to the height of 100 feet; they consist of

every variety, of such as are valuable for their hardness and durability, as well as of others, which are richly veined, capable of taking the finest polish, and well adapted for all sorts of ornamental furniture; while others yield valuable dyes, or exude balsamic and medicinal oils. The fruit trees are in great variety, and the fruits they yield are of the most exquisite delicacy and flavour. Wild animals and beasts of prey are abundant. These are the jaguar, which is a powerful and ferocious animal; the cougar, or red tiger, resembling a greyhound in shape, but larger in size; the tiger cat; the crabbodago, not much larger than a common cat, and exceedingly ferocious; the coatimondi, or Brasilian weasel; the great ant-bear; the porcupine; the hedgehog; the armadillo; the sloth; the opossum of different kinds; the deer; the hog; the agouti; the lisard; the chameleon. In the rivers are to be found the alligator; the tapir, resembling the hippopotamus of the old continent, but of much smaller size, not being larger than a small ass, but much more clumsy; the manati, or sea-cow, about sixteen feet in length; the paca, or spotted cony; and the pipa, a hideous and deformed animal. Of the serpent tribe there are various species, from the large aboma snake, which grows to the length of twenty and thirty feet, to those of the smallest size. The woods of Guiana are filled with every variety of the feathered species, many of which, there is reason to believe, are but imperfectly known to naturalists. Those most commonly seen are the crested eagle, a very fierce bird, and very strong; the vulture; the owl; the black and white butcher-bird; parrots of different kinds, and of the most brilliant plumage; the toucan; the pelican; the tiger-bird; herons of different kinds; the flamingo; the humming-bird of various species; the plover; the woodpecker; the mocking-bird. The vampire bat is also found in Guiana, and grows to an enormous size, measuring about 32½ inches between the tips of the two wings. It sucks the blood of men and cattle when they are fast asleep. After it is full, it disgorges the blood, and begins to suck afresh, until it reduces the sufferer to a state of great weakness. The rivers of Guiana abound with fish, many of which are highly prized by the inhabitants; and, owing to the heat and moisture of the climate, insects and reptiles of all sorts are produced in such abundance, that the annoyance from this source is inconceivable. These insects are flies, ants, mosquitoes, cockroaches, lisards, jack-spaniards, a large species of wasp, fire-flies, centipedes, &c. The native inhabitants of Guiana are continually receding from the districts which are occupied by Europeans. They chiefly consist of the following tribes, viz., the Caribbees, the Worrows, the Accawaws, the Arrowauks. From the earliest period, the Dutch colonies in Guiana have been exposed to depredations from fugitive Negroes, who, at different periods, have been driven, by the cruelty of their masters, to take refuge in the woods. At one time, the colony was threatened with destruction from these bands of deserter slaves. As the European troops who were sent against this enemy generally fell a prey to the climate, a corps of manumitted Negroes was formed, by whom the slaves were pursued into the woods; and the colony has been since freed from this source of annoyance.

GUIBERT, Jacques-Antoine-Hippolite, count of, was born at Montauban in 1743, educated at Paris, and accompanied his father to Germany, during the seven years' war, at the age of thirteen. In the battle of Bellinghausen, in 1761, finding that the orders which he carried were rendered unseasonable by a change of circumstances, he had the boldness to alter them, and adapt them to the existing state of affairs. In the Corsican war in 1766, he obtained the cross of St Louis, and soon after, with the rank of colonel, the chief command of the newly-levied Corsican legion. He employed his leisure hours in literary occupations, and his *Essai général de Tactique, précédé d'un Discours sur l' Etat de la Politique et de la Science militaire en Europe* (London, 1772), probably written during the German campaigns, attracted the more attention, as at that time a reform was going on in almost all the armies. He afterwards travelled for military purposes through Germany. His journal, *Journal d'un Voyage en Allemagne, fait en* 1773, *Ouvrage posthume de Guibert, publié par sa Veuve, et précédé d'une Notice historique sur la Vie de l'Auteur, par Toulongeon, avec Figures* (1803), was but a mere sketch for the author's use, but is interesting for its descriptions and anecdotes of celebrated men, especially of Frederic II., whose great character Guibert passionately admired. His tragedies have not retained their place upon the stage. In 1779 appeared his *Défense du Système de Guerre moderne*. In 1786, he became a member of the French academy. In 1787, he wrote his famous eulogy on Frederic II., one of the most splendid monuments ever raised to the memory of this great king. Guibert's eulogies, among which are one upon Thomas, and another upon l'Espinasse, are among his most finished works. Vigour, fancy, clearness, and a certain artlessness, engage the reader, and cause him to excuse many instances of negligence. Guibert was a field-marshal, and member of the council of war—an office which gave him much trouble. He died in 1790, in the 47th year of his age. He was distinguished for ambition and for activity of spirit.

GUICCIARDINI, Francis, a celebrated historian, was born March 6, 1482, at Florence, where his family was of distinguished rank. He obtained so great a reputation as a jurist, that in his twenty-third year he was chosen professor of law, and, although he had not yet reached the lawful age, was appointed ambassador to the court of Ferdinand the Catholic of Spain. When Florence (1512) had lost her liberty through the usurpation of the Medici, he entered the service of that family, which soon availed themselves of his talents. He was invited by Leo X. to his court, and intrusted with the government of Modena and Reggio. This office he discharged also under Adrian VI., to the general satisfaction; and afterwards, when Clement VII., (de' Medici) ascended the papal chair, Guicciardini was sent, as *luogotenente* of the pope, to Romagna, then torn by the factions of the Guelfs and Ghibelines, and infested by robbers where, by a severe and upright administration of justice, he soon succeeded in restoring tranquillity. He also contributed here in other ways to the public good, by constructing roads, by erecting public buildings, and by founding useful institutions. Having been appointed lieutenant-general of the pope, he defended Parma with great valour, when besieged by the French (at least he says so in his own history; Angeli, author of a history of Parma, accuses him, on the contrary, of great cowardice). At a later period, after the death of Giovanni de' Medici, Guicciardini was invited by the Florentines to succeed him in the command of the famous *bande nere*; but the pope still claimed his services for a time. Having quelled an insurrection in Bologna, he returned, in spite of the instance of the holy father, to his native city, where, in 1534, he began his great work on the History of Italy, which has since been repeatedly published, and has obtained for him great reputation. It extends from 1490 to 1534. In his retirement he was not without influence on state affairs, and his counsels often restrained the prodigality and the ambition of Alessandro de' Medici, who

esteemed him very highly, as did likewise Charles V., whose interests he had promoted in his negotiations at Naples, and who, when his courtiers once complained that he preferred the Florentines to them, answered, "I can make a hundred Spanish grandees in a minute, but I cannot make one Guicciardini in a hundred years." When Alessandro de' Medici was murdered by one of his relations (Lorensino, 1536), and the Florentines, under the direction of cardinal Cibo, wished to restore the republican constitution, Guicciardini opposed it with all his power, and maintained, that to preserve the state from becoming the prey of foreigners or of factions, the monarchical form of government ought to be retained. His eloquence and the force of his arguments triumphed, and Cosmo de' Medici was proclaimed grand-duke of Florence. Guicciardini died in 1540, and, according to his own directions, was buried, without pomp, in the church Santa Felicita in Florence. It is related of him, that his love for study was so great, that, like Leibnitz, he often passed two or three days without rest or food. One of his works, which was afterwards translated into French, his Advice on political Subjects, was published in 1525, at Antwerp. The Florentine J. B. Adriani (who died 1579), in his *Istoria de' suoi Tempi* (new edition, 1823), which may be regarded as a continuation of the work of Guicciardini, has given a good narrative of events between 1536 and 1574. This work was first published after the death of the author in 1583. The reader of Guicciardini is sometimes offended by a want of method. A more important defect, however, is, that his statements cannot always be depended on as derived from the best sources, so that he must be read with caution. One of the best criticisms on Guicciardini is contained in Leopold Ranke's *Zur Kritik neuerer Geschichtschreiber* (Leipsic and Berlin, 1824.) Guicciardini has often been called the *Italian Polybius*. Of the twenty books of his history, the four last are unfinished, and are to be considered only as rough drafts. He is much too prolix, and the satirist Boccalini, in his *Ragguagli di Parnaso*, makes a Spartan, who has been condemned to read Guicciardini for having used three words when he could have expressed his meaning in two, faint away at the first sentence. Guicciardini also wrote poems. In the beginning of a poetical epistle, entitled *Supplicazione d'Italia al Cristianissimo Re Francesco Primo*, he expresses the feeling so commonly exhibited by Italian writers, ever since the time of Dante, in regard to the distracted state of their country. The epistle begins thus:—

Italia afflitta, nuda e miserande,
Ch' or de' principi suoi stanca si lagna,
A Te, Francesco, questa carta manda.

GUIDES; in some armies, persons particularly acquainted with the ground, who serve in the staff, to give the necessary information, and point out the best route for an army. As it is, however, impossible always to have officers of this kind, some armies have geographical engineers attached to the staff, whose particular studies are geography and topography. Napoleon gave the name of *guides* to his first body of guards, formed after he had been on the point of being surprised and taken prisoner in a castle on the Mincio. *See his own account*, Las Cases' *Mémorial*, &c. vol. ii., p. 3, ed. of 1824.

GUIDO ARETINO. See *Aretino*.

GUIDO RENI; the most charming and graceful painter whom Italy ever produced. His family name was *Reni*, but he is always called *Guido*. In fact, many of the old masters are best known by their Christian names. He was born at Bologna, in 1575. His father, Samuel Reni, an excellent musician, at first intended that his son should devote himself to music, for which he showed some talent; but he soon discovered in the boy a greater genius for painting, and had him instructed by the Dutch artist Dionysius Calvaert, who was then in high repute at Bologna. In this celebrated school, Guido is said to have studied chiefly the works of Albert Durer. This becomes probable if we consider some of his earlier works, in which, particularly in the drapery, occasional resemblance may be traced to the style of Albert Durer. In the mean time, the school of the Caracci, at Bologna, on account of its novelty and superior taste, began to eclipse the former, and Guido joined it in his twentieth year. He soon gave his teachers occasion to admire his talents, and is even said to have excited the jealousy of Annibal Caracci. Guido's desire to behold the treasures of art in Rome, induced him to visit that city, with two of his fellow students, Domenichino and Albani. There he saw some of the paintings of Caravaggio, who was greatly admired for his powerful and expressive (though often coarse and low) manner, which Guido imitated. His reputation soon spread, and cardinal Borghese employed him to paint a crucifixion of St Peter for the church Delle Tre Fontane. The powerful manner of this picture, and several others of the same period, which Guido did not, however, long retain, increased his fame; and when, at the cardinal's request, he completed the Aurora, so beautifully engraved by Morghen, the admiration was universal. Paul V., at that time, employed him to embellish a chapel on Monte Cavallo, with scenes from the life of the virgin Mary. Guido accomplished this work to the satisfaction of the pope, and was next intrusted with the painting of another chapel in Santa-Maria-Maggiore. These works were followed by so many orders, that he was unable to execute them all. To this period his Fortuna, and the portraits of Sixtus V. and cardinal Spada, may be assigned. Guido's paintings are generally considered as belonging to three different manners and periods. The first comprises those pictures which resemble the manner of the Caracci, and particularly that of Caravaggio. Deep shades, narrow and powerful lights, strong colouring, in short, an effort after great effect, distinguish his works of this first period. The second manner is completely opposed to the first, and was adopted by Guido himself as a contrast to the works of Caravaggio, with whom he was in constant controversy. Its principal features are light colouring, little shade, an agreeable though often superficial treatment of the subject. It is quite peculiar to Guido. His Aurora forms the transition from the first to the second style of his paintings. A third period commences at the time when Guido worked with too much haste to finish his pieces, and was more intent upon the profits of his labour than upon its fame. It may be distinguished by a greenish gray, and altogether unnatural colouring, and by a general carelessness and weakness. This last manner is particularly remarkable, in the large standard with the patron saint of Bologna, and more or less in a number of other paintings of that period. During the government of pope Urban VIII., Guido quarrelled with his treasurer, cardinal Spinola, respecting the price of a picture, and returned to Bologna. There he had already executed his St Peter and Paul for the house Zampiere, and the Murder of the Innocents for the Dominican church, and was on the point of embellishing the chapel of the saints with his pictures, when he was called back to Rome, loaded with honours, and received by the pope himself in the most gracious manner. But he soon experienced new difficulties, and accepted an invitation to go to Naples. Believing himself unsafe at this place, on account of the hatred of the Neapolitan

artists against foreign painters, he returned once more to his native city, never to quit it again. At Bologna, he finished the chapel above mentioned, painted two beautiful pictures for the church Dei Mendicanti, an Ascension of Mary for Genoa, and a number of others for his native city and other places, particularly for Rome. While in Rome, Guido had established a school. In Bologna, the number of his pupils amounted to 200. He now worked mostly in haste, accustomed himself to an unfinished, affected style, became negligent, had many things executed by his pupils, and sold them, after having retouched them, as his own works; and all this merely to satisfy his unfortunate passion for gambling. He often sold his paintings at any price, and became involved in pecuniary embarrassments, which were the cause of his death, in 1642.

If we analyse Guido's productions, we find his drawing not always correct, rarely powerful and grand, his attitudes without much selection, sometimes not even natural. Yet his drawing has a grace peculiar to him, a loveliness consisting rather in the treatment of the whole, than in the execution of the parts. This grace and loveliness are often to be found only in his heads. His ideas are generally common, the distribution of the whole rarely good; hence his larger works have not a pleasing effect, and are not so much valued as his smaller works, particularly his half-lengths, of which he painted a great number. The disposition of his drapery is generally easy and beautiful, but often not in harmony with the whole piece, and with the nature of the substance which it is intended to represent. An elevated, varied, distinct expression is not to be looked for in his works. For this reason, he rarely succeeded in adult male figures, in which power and firmness are to be represented. The best are from his early period. But Guido's element was the representing of youthful, and particularly female figures. In them he manifested his fine instinct for the delicate, graceful, charming, tender, and lovely. This is shown particularly in his eyes, turned towards heaven, in his Madonnas and Magdalens. His colouring is rarely true, often falls into yellowish, greenish, and silver gray, yet is generally agreeable, and proves the very great ease and power with which he managed his pencil, which, however, often degenerates into mannerism. Guido not only worked in relievo, but also executed some statues, and a considerable number of etchings, with his own hand, which exhibit ease and delicacy, and are much esteemed. It might almost be said, that his drawing, in these engravings, is more correct and noble than even in his paintings. Among the number of his pupils, who remained more or less faithful to his style, are distinguished, Guido Congiagi, Simone Contarini, Pesarese, Francesco Ricchi, Andr. Streni, Giovanni Sementi, G. Bat. Bolognini.

The most celebrated work of Guido is his Aurora, painted on a ceiling in the hall of the Rospigliori palace at Rome. It represents Apollo in his car, attended by the Hours, and preceded by Aurora. There is also a fine painting of a Magdalen by this artist in Chiswick House, belonging to the Duke of Devonshire, of which there is an engraving by Sir Robert Strange. Equally celebrated is a painting of Lot and his daughters, in the collection of a gentleman at Yarmouth, also engraved. In the gallery of the Louvre are several, of which the finest is the centaur Nessus carrying off Dejanira.

GUIENNE. See *Aquitania*, and *Department*.

GUIGNES, Joseph de, a French writer, distinguished for his knowledge of the Oriental languages, which he studied under the celebrated Stephen Fourmont, was born at Pontoise, in 1721. He was appointed royal interpreter in 1745, and, in 1753, was chosen a member of the academy of belles-lettres. He applied himself particularly to the study of the Chinese characters; and, comparing them with those of the ancient languages, he thought he had discovered that they were a kind of monograms, formed from three Phœnician letters, and therefore concluded that China must have been peopled by an Egyptian colony. The *Journal des Savans*, and the Memoirs of the Academy, he enriched, during the space of thirty-five years, with a great number of contributions, which display profound learning, great sagacity, and many new views. At the age of near eighty, he was reduced to poverty by the revolution; but, even in this situation, he retained his equanimity, his disinterestedness, and his independence, which would not allow him to receive support from any one. He died at Paris, in 1800. Among his numerous works the first place belongs to his *Histoire Générale des Huns, des Turcs, des Mogols et des autres Tartares Occidentaux* (five volumes, 4to). In this work, the materials for which he had drawn from valuable, and, in part, untouched stores of Eastern knowledge, to which he had gained access by a profound study of the languages, much light is thrown upon the history of the caliphates, of the crusades, and, generally, of the Eastern nations. As regards industry, he has given us no cause to complain; but we often feel the want of a careful style, of a nice taste, and a just discrimination. The language frequently shows marks of neglect. A better taste would have given a more powerful translation of the peculiar Oriental expressions. He needed a more philosophic mind to understand fully the poetry of the East, to lay open the causes of events, to point out the most striking circumstances, which he has often slightly passed over. De Guignes, like Herbelot, drew from a large number of manuscripts, and, like him, often falls into repetitions and sometimes contradictions. His *Mémoire dans lequel on prouve que les Chinois sont une Colonie Egyptienne* is of great value. Translations of the *Chou King* (by father Gaubil), one of the sacred books of the Chinese, and of the military Art among the Chinese (by Amyot), were revised and published by De Guignes, besides other pieces, and twenty-eight papers in the Memoirs of the Academy, and contributions to the *Notices et Extraits de la Bibliothèque royale*. His son Christian, born in 1759, was likewise skilled in the Chinese language and literature, and wrote several dissertations upon them. His Chinese dictionary, with the definitions in French and Latin, is a masterpiece of typography, and is generally esteemed.

GUILD; a society, fraternity, or company, associated for carrying on commerce, or some particular trade. The merchant guilds of our ancestors answer to our modern corporations. The societies of tradesmen, exclusively authorised to practise their art, and governed by the laws of their constitution, played a very important part in the middle ages. Few institutions show the progress of civilisation in a stronger light than that of guilds, from the first rude mixture of all kinds of labour, its division, the establishment of corporations, the corruption of these by privileges, which are in some cases highly absurd, down to their total abolition, and the restoration of liberty to human industry. Though the division of labour is comparatively of recent date, yet the division of the people by occupations is one of the oldest and rudest political institutions of which history makes mention. These divisions by occupations or castes (q. v.), generally took their rise, however, from a difference of national origin, as with the Egyptians, Indians, &c. The Romans had various mechanical fraternities (*collegia et corpora opificum*) which might be compared to modern guilds, as they had the right to

nact bye-laws. In the later times of the republic, hese societies not unfrequently appeared as political arties; and, on this account, their influence was estrained, and they were partly abolished after the stablishment of the monarchy. In Italy, the cradle f the class of free citizens in the middle ages, and articularly in the Lombard cities, those connecting aks between the ancient and modern civilisation, me remains of these Roman institutions, or recol-ections of them, probably contributed to revive the uilds, which naturally presented themselves as an xcellent means of supporting the citizens against he nobility, by uniting them into powerful bodies. With the increasing importance of the cities, which ecame the seats of industry, and with the establish-ent of their constitutions, begins also the extension f guilds. The chief reason that mechanical indus-ry was freely developed in the middle ages, at the ame time with agricultural, which had been exclu-ively cultivated by the Greeks and Romans, was the ndependence which the mechanics acquired with the rowth of municipal and civil liberty. Mechanical ndustry has always been essentially of a democratic haracter, and would never have flourished under the eudal system. It is not possible now to give the xact date of the origin of these societies in upper taly. Traces of them are found in the tenth cen-ury. Thus, in Milan, we find the mechanics united nder the name *credentia*. It is certain that small ocieties existed as early as the twelfth century, which appear, in the following century, to have been n the possession of important political privileges. We even meet with abuses in these bodies as early as his period; and, several centuries later, the guilds became the subject of bitter and just complaint, par-icularly those in Germany. When the advantages of these associations became known and felt, they rapidly increased; and, in the struggles of the citi-ens and the nobility, the principal resistance against he latter was made by the corporations. As soon as the citizens acquired an influence on the admini-tration, the guilds became the basis of the municipal constitutions, and every one, who wished to partici-pate in the municipal government, was obliged to become the member of a guild. Hence we find so often distinguished people belonging to a class of mechanics, of whose occupation they probably did not know any thing. This mixture of social and political character, as well as the insignificance of the individual, considered merely as such, is a natural consequence of the rudeness of the period. Just prin-ciples are the work of time. It is only by slow de-grees that the true is separated from the false, the essential from the unessential. Political, like religious and scientific principles, are at first always vague and incoherent. Men must have long experience of the concrete before they form just notions of the abstract. Thus it is a characteristic of the middle ages, that political rights were considered as arising from spe-cial privileges. All that men enjoyed was looked upon as a gift from the lord paramount. In fact, the idea of the rights of man, as an individual, has been developed only in very recent times. Even the ancient republics had no just conception of it. In Germany, the establishment of guilds was also inti-mately connected with that of the constitutions of the cities. (q. v.) The latter were different accord-ing as the ancient Roman, or the old German or-ganisation of the community prevailed; the relations among the mechanics were also very different. The mechanical arts were at first chiefly practised by the villeins; and, even in the time of Charlemagne, they appear to have been pursued on the estates of the feudal lords, by the bondsmen, as is still the case on the great possessions of Russian noblemen. Com-merce could not, however, be carried on by bonds-men (in Russia they are permitted to trade). Al-though there early existed free mechanics, yet they were also under the protection and jurisdiction of the feudal lord, before the privileges of the cities were acknowledged, except in cities of Roman origin (for instance, Cologne). These privileges early secured to them, as a distinct class of vassals, a sort of or-ganisation under the direction of the masters of each trade, as appears from the oldest law of the city of Strasburg, which seems to belong to the fifteenth century; and out of this the guilds in Germany may have originated. See Eichhorn's *Deutsche Staats- und Rechtsgeschichte*, vol. ii.; and his *Treatise on the Origin of the Constitutions of German cities*, in the *Zeitschrift für Geschichtliche Rechtswissenschaft*, vol. i., No. 2, and vol. ii., No. 2; and Hullmann's *Geschichte des Ursprungs der Städte in Deutschland*.

The full development of the guilds in Germany falls in the last half of the twelfth century, and the oldest examples are those of the cloth-shearers and retailers in Hamburg (1152), the drapers (1153), and shoemakers in Magdeburg (1157). But they pos-sessed no political importance in Germany before the thirteenth century, when a struggle arose between them (the labouring classes) and the citizens belong-ing to ancient families, the civic aristocracy. The guilds were victorious, and became so powerful, that even persons of "free occupations" joined these associations, as the allodial possessors of land some-times placed themselves under feudal lords. The corporations of merchants and mechanics became more and more confirmed in their privileges and monopolies, whilst the country people suffered by being made, in many respects, the slaves of the guilds. Particular branches of industry were often subject to restrictions in favour of the guilds, which were sometimes of a most offensive nature. The guilds became insupportable aristocracies, sometimes allowing only a certain number of master mechanics in the place, and seldom admitting any one into their associations except favourites of the masters. The examinations for the admission of a journeyman to the rank of a master were used as a means of extort-ing money, and were often combined with the most absurd humiliations. In some parts of Germany, there were from four to five different guilds of smiths, which did not allow each other the use of certain tools. The guilds are now abolished in a consider-able portion of Germany; and yet many persons wish to restore the ancient order of things, as a sup-port of aristocratical distinctions, and as tending to repress that free exercise of industry which is so favourable to the growth of the democratic spirit. Attempts were made to check the insolence of the guilds by laws of the empire, as in 1731, but without success. In France, the guilds also originated with the increasing importance of cities, and became general in the reign of Louis IX.; but they became subject to abuses, as in Germany, and were abolished at the time of the revolution. Their restoration was also desired by those who wished for the return of the Bourbons. In Britain, the societies of mecha-nics are important principally in a political respect, on account of their connexion with the democratic element of the constitution. These societies origin-ated in Britain, as on the continent, at the time of the development of the importance of the cities. In the towns where they still exist, they have an im-portant influence in the election of representatives, and in the municipal administration. The rights of a "freeman," with which is associated the privilege of voting in the cities or boroughs, are often confined to the members of these societies, of which the mem-bership is obtained by serving an apprenticeship, or

by purchase. As the principal privilege of these societies consists in this right of voting, persons not mechanics are frequently admitted members, to give them this privilege. These guilds, in England, have no right to prevent any man from exercising what trade he pleases. The only restriction on the exercise of trades is the statute of Elisabeth, requiring seven years' apprenticeship. This the courts have held to extend to such trades only as were in being at the time of the passage of the statute; and they consider seven years' labour, either as master or apprentice, as an apprenticeship.

GUILDER. See *Coins*.

GUILDFORD, a borough town in the county of Surrey, on the banks of the river Wye, thirty miles S. W. of London, formerly a residence of the English kings. It sends two members to parliament, although it has only a population of 3813 persons.

GUILDHALL; the city hall of London. It was first built in 1411, but almost entirely consumed in the great fire. In 1669, it was rebuilt. The front was not erected until 1789. The most remarkable room of this edifice is the hall, 153 feet long, and 48 broad, and 55 high, capable of containing from 6000 to 7000 persons, and used for city feasts, the election of members of parliament and city officers, and for all public meetings of the livery and freemen. Monuments, erected at the expense of the city, to the memory of lord Nelson, William Pitt earl of Chatham, William Pitt his son, and Beckford, lord mayor in 1763 and 1770, whose celebrated reply to his majesty George III. is engraved beneath, ornament this hall. In another room, that of the common council, is a collection of pictures, some of great merit; among others, Copley's Destruction of the Spanish and French Flotilla, before Gibraltar, and many portraits of distinguished persons. The dinner which was given here, in 1815, by the city of London, to the emperor Alexander of Russia and other monarchs, cost £20,000.

GUILLOTIN, Joseph Ignatius, a French physician, was born at Saintes, in 1738. He was at first a Jesuit, and professor in the Irish college at Bordeaux, but afterwards studied medicine, and lived in Paris. He was one of the commissioners appointed to examine the pretended cures of Mesmer, which he contributed much to discredit. A pamphlet (in 1788) on some abuses in the administration, gained him great popularity, and caused his election into the national convention. Here he was principally occupied with introducing a better organization of the medical department. A machine, which he proposed should be used for the purpose of capital punishment, was called, from him, the *guillotine*. (q. v.) He narrowly escaped suffering himself by this instrument. He died in 1814, at Paris, where he was much esteemed as a physician.

GUILLOTINE. This instrument has been erroneously called an *invention* of Guillotin, a physician at Paris, during the French revolution, concerning whose character very false notions have also been entertained. (*See the preceding article.*) A similar instrument, called *mannaia*, was used in Italy for beheading criminals of noble birth. The *maiden*, formerly used in Scotland, was also constructed on the same principle. The convention having determined, on the proposition of Guillotin, to substitute decapitation for hanging, as being less ignominious for the family of the person executed, the guillotine was adopted, also on his proposition, as being the least painful mode of inflicting the punishment. It was erected in the *place de Grève*, and the first criminal suffered by it April 25, 1792. Portable guillotines, made of iron, were afterwards constructed. They were carried from place to place, for the purpose of executing sick persons. This machine consists of two upright pillars, in the grooves of which a mass of iron, sharpened at the lower extremity, is made to move by cords. Being raised to a certain height, it falls, and at once severs the head of the criminal (who is laid upon a horizontal scaffolding) from his body. It is much surer than the sword or axe, which is sometimes used for decapitation, and of which we read, in many instances, that several blows have been necessary to put an end to the life of the sufferer. In the reign of terror, it was called notre *très sainte Guillotine* by the most violent political fanatics. It is still the common instrument of capital punishment in France.

GUINEA; a name applied to a large extent of the western coast of Africa, of which the limits are not very definite. Geographers, however, seem now to have agreed in fixing, as the boundaries of Guinea, the Rio Mesurado and the western extremity of Benin, comprehending a space of about thirteen degrees of longitude. This large territory is usually divided into four portions, called the *Grain coast*, the *Ivory coast*, the *Gold coast*, and the *Slave coast*. The Grain coast, called also the *Malaghetta*, or *Pepper coast* extends from the Mesurado to the village of Grow, about ten miles beyond cape Palmas. The aromatic plant from which this coast derives its name, appeared, when Europeans first landed on this coast, a delicious luxury. As soon, however, as they became familiar with the more delicate and exquisite aromatics of the East, this coarser one fell into disrepute; and as this coast afforded neither gold nor ivory, and was not favourable for procuring slaves, it has been comparatively little frequented. About ten miles to the east of cape Palmas commences what by European navigators is termed the *Ivory coast*. This name is derived from the great quantity of ivory, or elephants' teeth, which is brought from the interior countries. Gold is also tolerably plentiful. Although the Ivory coast is thus tolerably supplied with materials of trade, it has never been very extensively frequented. The Ivory coast is populous and thickly set with villages, but does not contain any town of much consideration. It reaches to cape Apollonia. The Gold coast extends from cape Apollonia to the Rio Volta, which separates it from the Slave coast. Of all parts of Guinea, and, indeed, of the African coast, it is the one where European settlements and trade have been carried to the greatest extent. It has been frequented at different times by the Portuguese, the Danes, Swedes, Dutch, and British. Britain has now a more extensive footing upon this coast than any other nation. She maintains a range of forts, the expense of which is defrayed by the African company, out of a grant of £23,000 per annum, made by government for that purpose; but the trade is thrown open to all the subjects of the British nation. Although the Gold coast is situated almost immediately under the line, the thermometer has scarcely been known to rise above ninety-three degrees, and the common heat of midsummer is only from eighty-five to ninety. The country, from the sea, appears like an immense forest, parts only of which are cleared for the purpose of cultivation. High lands are seen in various directions, crowned with lofty trees and thick underwood; the soil along the coast varies from a light, sandy, and gravelly texture to a fine black mould and loamy clay. As we advance into the interior, it sensibly improves, and, at the distance of six or eight miles from the shore, becomes rich in the extreme, and fit for any species of cultivation. The natives inhabiting the Gold coast present a considerable variety. The most prominent place is held by the Fantees. Of late years, another power, before almost unknown to

uropeans, has occupied a conspicuous place. This s Ashantee, the sovereign of which has waged re- eated and successful wars against the Fantees. ape Coast Castle is the capital of the British settle- ents on the Gold coast; and forts are also maintained t Acra, Dixcove, Succondee, Commendo, and Ana- aboe. That at Winnebah has been given up. The lave coast extends from the Rio Volta to the bay nd river of Lagos, which separate it from Benin. f all the parts of native Africa yet explored by uropeans, this is the one where cultivation and the rts have been carried to the greatest perfection.— he country here was in a most flourishing and pros- erous state, when it received a fatal blow, about the iddle of last century, by the invasion of the king of ahomey, who, having conquered it, reduced the rincipal towns to ashes, and massacred a great pro- ortion of the population. This coast has since con- nued to form part of the territory of Dahomey, and governed by a viceroy, who resides at Griwhee; ut, under this ferocious and military tyranny, it has ever recovered its ancient wealth and prosperity.

GUINEA, NEW. See *Papua*.

GUINEA; an English gold coin, worth twenty- ne shillings sterling. Guineas were first coined, in he reign of Charles II. (1662), of gold which the nglish procured from Guinea, and hence the name. ill 1718, they were of the value of twenty shillings terling. See *Coin*.

GUINEA CLOTH. Mariners give the name of uinea to a much greater extent of the African coast han is recognised by geography; and, in commerce, everal articles made for the African trade are called y this name. Guinea cloth is a kind of calico, calcu- ted for the African market, where it is an important rticle of barter. There are also Guinea knives, &c.

GUINEA PEPPER. See *Cayenne Pepper*.

GUINEA PIG (*cavia cobaya*). This well known ttle animal is a native of South America, and is ow domesticated in Europe. As writers make but ttle mention of its habits and manners in a wild tate, most that is known respecting it has been erived from observations on the domesticated ani- al. It is a restless, grunting little quadruped, eldom remaining quiet more than a few minutes. It eds on bread, grain, fruit, or vegetables, giving a ecided preference to parsley. It breeds when only wo months old, and generally brings forth every wo months, having from four to twelve young ones t a time; hence the produce of a single pair might e a thousand in the year. From their being so rolific, they would become innumerable, were not ast numbers of the young eaten by cats, killed by e males, or destroyed by other means. As they re very tender, multitudes perish from cold and oisture. In the space of twelve hours after birth, e young are able to run about. In their habits, ey are so extremely cleanly, that if the young, by ny accident, are dirtied, the female takes such a islike to them as never to suffer them to approach er. The principal employment of the male and emale seems to consist in smoothing each other's air, which being performed, they turn their atten- ion to the young, whose hair they take particular are to keep unruffled, biting them if they prove efractory. Their sleep is short, but frequent; they at rapidly, like the rabbit, a little at a time, but ften. They repose flat on their belly, and, like the og, turn round several times before they lie down. Their manner of fighting is very singular, and ppears extremely ridiculous. One of them seizes he neck of his antagonist with his teeth, and attempts o tear the hair from it; in the mean time the other urns his tail to the enemy, kicks up like a horse, nd, by way of retaliation, scratches the sides of his opponent with his hind feet. Their skins are scarcely of any value, and their flesh, though edible, is not savoury. Buffon observes of them, "By na- ture they are gentle and tame; they do no mischief, but they are equally incapable of good, for they never form any attachments: mild by constitution; docile through weakness; almost insensible to every object, they have the appearance of living machines, con- structed for the purposes of propagation, and of re- presenting a species."

GUISCARD, ROBERT, duke of Apulia and Cala- bria, a son of the celebrated Tancred de Hauteville, was born in 1015. Hauteville had many sons, and his estate in Normandy was small. This induced his three eldest sons, William the Ironarms (*Brus- de-fers*), Dagobert and Humphrey to go to Italy, and offer their services to the Italian princes, then en- gaged in continual wars. Fortune, courage, and cunning enabled William the Ironarms, who knew how to take advantage of the weakness of the Italian princes, to get possession of Apulia. Robert Guiscard, who, in the mean time, had grown up, burned with the desire of sharing the splendid for- tune of his brother in Italy. A little band of adven- turers was soon found, in those times so prone to adventurous enterprises, who were ready to follow him in the expectation of a rich booty. Robert, who was no ways inferior in courage to his brothers, soon distinguished himself in many battles; and the soldiers, moved by his exploits, unanimously pro- claimed him, after the death of his brother Hum- phrey, count of Apulia—a dignity which he accepted without hesitation, although to the prejudice of the rights of his brother's children. He then conquered Calabria, in the possession of which he was con- firmed by pope Nicholas II., although that pontiff had not long before excommunicated him for his out- rages. Robert, grateful for this favour, bound him- self to pay to the holy see an annual sum; and from this the feudal claims of the papal see on Naples, which exist to this day, are derived. In Apulia itself, Guiscard ruled with absolute power. This country had, till his reign, preserved a number of privileges, and some forms of a constitution; but scarcely was he at the head of the state, when he destroyed them; and hence naturally arose discon- tents and conspiracies among the nobility, who, at that time, were alone in possession of any rights. Robert punished many of these with death, and reduced the others to submission. He now began to think of conquering Sicily, the investiture of which the pope had already promised him. He sent, there- fore, his youngest brother, Roger, whose valour had already been displayed in many battles, at the head of 300 resolute warriors, to take possession of this island. Roger made himself master of the city of Messina with this small band, in 1060. In the fol- lowing year, the two brothers united, conquered the Saracens on the plains of Enna; but the misunder- standing which broke out between the victors, pre- vented them from deriving all the advantages which might have resulted from this victory. Guiscard had promised Roger the half of Calabria, in case his expedition to Sicily should prove successful; but he was now unwilling to allow him more than two cities. The complaints of Roger irritated his bro- ther, who determined to imprison him. But the soldiers of the former made themselves masters of the person of Robert himself, and Roger was mag- nanimous enough not to take advantage of this suc- cess. Guiscard, touched with this generosity, was reconciled to his brother, and fulfilled his promise. Roger now conquered nearly the whole of the island, and became the first count of Sicily. Guiscard, in the mean time, besieged all those cities in Lower

Italy which, as yet, were in the hands of the Saracens. Some of these detained him a long time; as, for instance, Salerno and Bari, before the latter of which places Guiscard was encamped for four years, and endured all the violence of the weather and the dangers of war, in a miserable hut, composed of branches of trees and covered with straw, which he had caused to be built near the walls of the city. He at length succeeded in conquering all the provinces which now form the kingdom of Naples, and he would have extended his victorious course still farther, had he not been excommunicated by Gregory VII., on account of his attack on Benevento, and obliged to confine his ambition within these limits. The betrothment of his daughter Helen to Constantine Ducas, the son and heir of Michael VII., gave him afterwards an opportunity of interfering in the affairs of the Greek empire. He fitted out a considerable fleet, and sent his son Boemond to the conquest of Corfu, while he himself went to attack Durasso. A tempest and a contagious disease had nearly frustrated this expedition. Alexis Comnenus, then emperor of Constantinople, approached with superior forces. The armies joined battle under the walls of Durasso, where the victory at first inclined to the side of the Greeks; but the courage of Guiscard gave the battle a different turn. He rallied the already flying bands of his soldiers, led them anew to the combat, and gained a complete victory over forces six times as numerous as his own. Durasso was compelled to surrender. Robert penetrated into Epirus, approached Thessalonica, and filled the capital with terror. In the midst of this victorious career, he was recalled by the information that Henry IV., emperor of Germany, had entered Italy. He gave the command to Boemond, and hastened home to assist Gregory VII., who was besieged in the castle of St Angelo, against the Germans. Henry IV. was compelled to retreat; Gregory was released, and conducted to Salerno as a place of safety. Guiscard now hastened again to Epirus, where he repeatedly defeated the Greeks, and, by means of his fleet, made himself master of many of the islands of the Archipelago. He was upon the point of advancing against Constantinople, when his death took place in the island of Cephalonia, July 17, 1085, in the seventieth year of his age. His army retreated, and the Greek empire was saved. Guiscard's corpse was put on board a galley, which running aground at Venusa, the remains of the victorious prince were deposited in the church of the Holy Trinity. His sons Boemond and Roger, after much dispute, divided the conquests of their father, the former receiving Tarentum, and the latter Apulia. Robert Guiscard left behind him the glory of having protected learning, and of being highly estimable in all his private relations. His appearance was martial, his frame powerful, and his courage unbounded. The school of Salerno claims him as its founder.

GUISCHARD, Charles Gottlieb, an able writer on military tactics, was a native of Magdeburg. After studying at the universities of Halle, Marburg and Leyden, he entered into the service of Holland, and, while thus employed, found leisure to prepare materials for his *Mémoires militaires sur les Grecs et les Romains*, which appeared in 1757, (in 2 vols., 4to), and met with great approbation. The same year, he entered as a volunteer into the allied army, and acquired the esteem of prince Ferdinand of Brunswick, who recommended him to the king of Prussia. He was a favourite of Frederic the Great. A dispute having once arisen between them respecting the name of the commander of Cæsar's tenth legion, in which Guischard proved to be right, Frederic gave him the name of this commander (*Quintus Icilius*), by which he was afterwards frequently called. Besides the work already mentioned, he was the author of *Mémoires Critiques et Historiques sur plusieurs Points d'Antiquité militaire* (4 vols., 8vo), upon which work Gibbon bestows very high encomiums. Guischard died in 1775.

GUISE; the name of a celebrated noble family in France, a branch of the house of Lorraine. Claude de Guise, fifth son of René, duke of Lorraine, born in 1496, established himself in France, and married Antoinette de Bourbon in 1513. His valour, his enterprising spirit, and his other noble qualities, obtained for him great consideration, and enabled him to become the founder of one of the first houses in France. In 1527, for the sake of doing him honour, his county of Guise was changed to a duchy, and made a peerage. At his death, in 1550, he left six sons and five daughters, of whom the eldest married James V. king of Scotland. The splendour of the house was principally supported by the eldest son, Guise (Francis, duke of Lorraine), born in 1519, and called *Le Balafré* (the scarred), from a wound which he received in 1545, at the siege of Boulogne, and which left a permanent scar on his face. He showed distinguished courage, in 1553, at Metz, which he defended with success against Charles V., although the emperor had sworn that he would rather perish than retreat without having effected his object. In the battle of Renti, Aug. 13, 1554, he displayed remarkable intrepidity. He also fought with success in Flanders and in Italy, and was named lieutenant-general of all the royal troops. The star of France began again to shine as soon as he was placed at the head of the army. In eight days, Calais was taken, with the territory belonging to it, in the middle of winter. Thus the English lost the city without recovery, after having held it 210 years. He afterwards conquered Thionville from the Spaniards, and proved that the good or ill fortune of whole states often depends on a single man. Under Henry II., whose sister he had married, and still more under Francis II., he was the virtual ruler of France. The conspiracy of Amboise, which the Protestants had entered into for his destruction, produced an entirely opposite effect. The parliament gave him the title of *saviour of his country*. After the death of Francis II., his power began to decline. Then grew up the factions of Condé and Guise. On the side of the latter stood the constable of Montmorency and marshal de St André; on the side of the former were the Protestants and Coligny. The duke of Guise, a zealous Catholic, and an enemy to the Protestants, determined to pursue them sword in hand. After having passed the borders of Champagne at Bassi, March 1, 1562, he found the Calvinists singing the psalms of Marot in a barn. His party insulted them: they came to blows, and nearly sixty of those unhappy people were killed, and 200 wounded. This unexpected event lighted the flame of civil war throughout the kingdom. The duke of Guise took Rouen and Bourges, and won the battle of Dreux, Dec. 19, 1562. On the evening after this victory, he remained, with entire confidence, in the same tent with his prisoner, the prince of Condé, shared his bed with him, and slept quietly by the side of his rival, whom he regarded as a relation and a friend. At that time, the duke of Guise was at the height of his fortune. He was preparing for the siege of Orleans, the central point of the Protestant party, when he was killed by a pistol shot fired by Poltrot de Mercy, a Huguenot nobleman, Feb. 24, 1563.

GUISE, Henry, duke of Lorraine, eldest son of the preceding, was born in 1550. He displayed his courage, for the first time, at the battle of Jarnac, in 1569. His prepossessing appearance made him

a general favourite. He put himself at the head of an army, under the pretence of defending the Catholic faith, and advised the cruel massacre of St Bartholomew (1572). From motives of personal revenge, he took upon himself the assassination of Coligny, whom he called the murderer of his father. In 1576 was formed the League, first projected by his uncle, the cardinal of Lorraine. For this purpose, it was proposed to the most zealous citizens of Paris to join in a league, which had for its avowed object the defence of religion, of the king, and of the freedom of the state, but in reality tended to the oppression both of the king and the nation. The duke of Guise, who wished to raise himself upon the ruins of France, inflamed the seditions, obtained several victories over the Calvinists, and soon saw himself in a situation to prescribe laws to his prince. He obliged Henry III. to annul all the privileges of the Huguenots, and carried so far his imperious demands, that the king, at last forbade him to come to Paris. Nevertheless, he appeared there in 1588, and obliged the king to leave the city and conclude a treaty with him. Flushed by his triumph, he became imprudent, and clearly showed that he aimed at the highest power. In consequence of the treaty, the estates were assembled at Blois. The king, informed of the ambitious plans of the duke, took counsel with his confidants, D'Aumont, Rambouillet, and Beauvais-Nangis, and all three were of opinion that it was impossible to bring him to a regular trial, but that he must be privately despatched, and that this measure would be justified by his open treason. The brave Crillon refused to take upon himself the execution of this plan. It was therefore intrusted to Lognac, first chamberlain of the king, and captain of forty-five Gascon noblemen, of the new royal guard. He selected nine of the most resolute, and concealed them in the king's cabinet. The duke had, indeed, been warned, and his brother, the cardinal, advised him to go to Paris; but, upon the advice of the archbishop of Lyons, who represented to him that his friends would lose courage if he left Blois at so favourable a moment, he resolved to await the worst. On the following day, Dec. 23, 1588, he went to the king, and was somewhat concerned at seeing the guards strengthened. As soon as he had entered the first hall, the doors were shut. He preserved, however, a calm exterior, and saluted the bystanders as usual. But when about to enter the cabinet, he was stabbed with several daggers, and, before he could draw his sword, he fell dead, exclaiming, "God have mercy on me." At the time of his death, he was thirty-eight years old. On the following day the cardinal was also assassinated; but, far from extinguishing the fire of civil war, this double murder only increased the hatred of the Catholics against the king. The high-minded Henry of Navarre (Henry IV.) said, upon hearing of the deed, "Had Guise fallen into my hands I would have treated him very differently. Why," added he, "did he not join with me? We would have conquered, together, all Italy."

GUITAR, or GUITARRA; a stringed instrument, the body of which is of an oval-like form, and the neck similar to that of a violin. The strings, which are distended in parallel lines from the head to the lower end, passing over the sounding hole and bridge, are tuned to the C above Fiddle G, E its third, G its fifth, and their octaves. The intermediate intervals are produced by bringing the strings, by the pressure of the fingers of the left hand, into contact with the frets fixed on the key-board, while those of the right agitate the strings and mark the measure. The Spaniards, the reputed inventors of the guitar, derived the name they give it, *guitarra*, from *cithara*, the Latin denomination for almost every instrument of the lute kind. The people of Spain are so fond of music, and of the guitar in particular, that there are few, even of the labouring class, who do not solace themselves with its practice. It is with this instrument that the Spanish gentlemen at night serenade their mistresses; and there is scarcely an artificer in any of the cities, or principal towns, who, when his work is over, does not go to some of the public places, and entertain himself with his guitar.

GULF STREAM. See *Current*.

GULL (*larus*). These birds are well known every where, being found almost universally spread over the globe. They are distinguished from other sea fowl by their straight bill, bending downwards towards the point, and marked below the under mandible by a triangular prominence, by their light body, supported by large wings, by slender legs, palmated feet, and a small hind toe. They are timid and cowardly, except in defence of their young. Generally seen in large flocks, the old and young separate; the larger species frequent the sea, the smaller, lakes or rivers. They walk with tolerable ease, and swim well, but are incapable of diving. They keep much on the wing, and their flight is rapid, strong, and long sustained, even in heavy gales. In sitting, they contract their neck, and rest on one foot. They are extremely voracious, fighting with each other for prey. They are patient of hunger, but will feed on every kind of animal food, either dead or alive, putrid or fresh. Their principal food, however, is fish, of which they will follow the shoals; they catch them with great agility, darting down like an arrow. They breed only once a year, laying from two to four eggs. The species are exceedingly numerous, and resemble each other greatly. The gulls are continually fighting with each other, and the strong plundering the weaker. No sooner does one rise from the water, with a fish in its bill, than it is immediately pursued by others, stronger than itself, and the first that reaches it tears away the spoil. Should, however, the latter not instantly swallow the booty it has acquired, it is, in turn, pursued by others; and, even if it has performed this process, it is oftentimes obliged to disgorge it, when it is seized by one of the pursurers, before it can reach the water. The facility which the gulls have of vomiting their food has been taken notice of, even in their captive state. Some of these birds have been tamed, but, even then, they have always discovered the same quarrelsome and voracious habits. When two are kept together, the weaker generally becomes the victim of the ill nature of the other. This genus is not well understood by naturalists, and much confusion exists as to the species.

GUM; one of the proximate principles of vegetables, distinguished by the following properties:—It is an insipid, inodorous, uncrystallisable solid, more or less transparent, the various colours which the different kinds possess being derived from mixture with colouring principles while exuding in a fluid state. It is insoluble in alcohol, and extremely soluble in water; in which properties it is the reverse of resin. It differs from mucilage only in being deprived of the water which rendered it fluid; and, of course, when water is added, it again becomes mucilage. This mucilage is apparently not susceptible of fermentation, and may be kept for a long time, as it is less disposed to spontaneous changes than almost any vegetable product. Its chemical composition so nearly approaches sugar, that it may be converted into it by means of nitric acid. Gum, as above defined, is identical in all vegetables, and the different kinds vary only in the quantity and quality of the substances united with them. It exists naturally almost pure in gum Arabic and gum Senegal, and, more or

less mixed, in the gum which exudes from the plum, cherry, and other fruit-trees, as also in the mucilage of flaxseed, slippery elm, &c. Various resins and gum-resins are commonly confounded under this appellation.

GUM ARABIC is the product of the *mimosa Nilotica* and some other species of the same genus, inhabiting the sandy parts of Arabia, Egypt, Senegal and Central Africa. It exudes spontaneously, in a fluid state, and remains attached to the branches after it has concreted and become solid. This exudation takes place continually, during the whole of the dry season, from October to June, but more copiously immediately after the rains. December and March are the two months in which this gum is collected by the Arabs, with whom it is an important aliment, those tribes that are continually wandering in the desert often making it their principal article of food during a great part of the year. Gum Arabic is obtained in rounded masses, transparent, or of a light yellow colour, capable of being easily reduced to a powder, insipid to the taste, or possessing a slight acidity, which, however, is only perceptible by those who use it habitually. It is easily soluble in water, and the solution has the property of conveying pulverized solids through a filter, which would separate them were they suspended merely in water: thus it is impossible, by this means, to separate powdered charcoal from gum water. In pharmacy, gum Arabic is employed to suspend in water, substances which, otherwise, could not be kept equally diffused, as balsams, fixed oils, resins, &c.; but its principal consumption is in manufactures, forming the basis of crayons and cakes of water-colours, as well as of writing-ink, and several liquid colours, serving to increase the consistency of these colours, and to prevent their spreading in calico printing, affording a clear cement for joining light substances which may be prepared in a moment, giving a lustre to ribands, silks, &c., which, however, is destroyed by the application of water. It is, besides, used for a great variety of purposes. In medicine, it is frequently employed, especially in dysenteries, as a demulcent, and enters into the composition of a variety of emollient preparations. Gum Senegal does not differ in its sensible properties; indeed, the chief part of the gum Arabic of commerce is brought from Senegal, and constitutes the most important article of trade with that country.

GUM RESINS apparently combine the properties of gums and resins, being partly soluble in water, partly in alcohol; but they are evidently compound substances, formed of two or more vegetable principles, which, indeed, are often in a state of mere mechanical mixture. Aloes, ammoniac, assafœtida, galbanum, gamboge, olibanum, scammony, and a great variety of concrete juices, are referred to this head.

GUN; a fire-arm, or weapon of offence, which forcibly discharges a ball, shot, or other offensive matter, through a cylindrical barrel, by means of gunpowder.

Gun is a general name, under which are included divers, or even most species of fire-arms. They may be divided into great and small. Great guns, called, also, by the general name *cannons*, make what we also call *ordnance*, or *artillery*, under which come the several sorts of cannon. (See *Cannon*, *Artillery*, &c.) Great guns, of all sorts, cannons, carronades, &c., whether of iron or brass, are cast in sand, and afterwards bored. Small guns, muskets, fowling-pieces, &c., are forged from bars of malleable iron, hammered to a proper width, and then turned over a mandril, or cylindrical rod, so as to form a tube with a bore smaller than that of the intended piece. The edges overlap about half an inch, and are firmly welded together. The tube is then hammered, in semicircular grooves, on an anvil hollowed for the purpose. It is afterwards bored with several instruments, of different sizes, in succession, till the hollow is sufficiently large and smooth. A strong plug is firmly screwed into the breech, so as to make it perfectly close. The projecting parts of the barrel, the sight, the loops which fasten it to the stock, &c., are soldered on.

In plate XLII, fig. 8, we have given a section of a cannon in order to point out the principal parts into which it is divided by gunners, C B is the length of the gun, C D the first reinforce, D E the second reinforce, E F the chase, and F B the mouth, A C the caseable, K, G, S, D, E, F, B, the bore, and C H the axis of the piece. K, the bottom of the bore, and the space between C and K the vent field, the vent being at K, one of the trunnions is shown at H, the opposite one being cut away. The breech is seen at C, and M is called the button of the breech. The angle formed by the axis of the bore and a line applied to the side of the gun, is called the angle of departure.

Cannon are most commonly made of brass or iron. The size of a cannon is reckoned by the diameter of its bore, estimated by the weight of a cast iron ball that will fit it. Thus, a six pounder is a cannon whose bore is fitted to discharge a six pound cast iron bullet. The diameter of a six pound bullet being 3·33 inches, an increase of one tenth is allowed for the width of the bore, wherefore the calibre will be 3·668 inches. The general dimensions of a cannon are taken from the length which is supposed to be divided into eighteen equal parts, as shown in the line XY, in the figure; but the unit of measure for the more minute portions is taken from the diameter of the calibre, which is supposed to be divided into sixteen equal parts. Considerable diversity exists in the proportions of cannon even in the British service. Large guns are not now so much used as formerly, but even as late as the seventeenth century, guns of extraordinary size were in use. The largest gun now existing, is one at Beijapoor: it is about fourteen feet in length, and would require a bullet of 2600 lbs.; but is supposed to be intended for stone balls. At Dover, there is a sixty pounder, called Queen Anne's pocket pistol, and in Edinburgh castle, an eighty pounder, called Mons Meg.

Fig. 9, is a view of a cannon mounted on a carriage; fig. 10, shows the interior of a *bomb*; fig. 11, a view of *grape* shot; and fig. 12, a mortar mounted on its carriage.

GUNNERY signifies the science of using artillery against an enemy judiciously, and to the greatest effect. Besides an accurate acquaintance with the management of ordnance of all kinds, the range and force of every kind, the charge and direction necessary for different distances, their materials, the manner of making and of preserving them, with the component parts, the kinds, the fabrication, the effect of gunpowder, and the method of preserving it, with the manner of preparing and managing every thing that appertains to ammunition, the artillerist must be able to instruct his men in their exercises, both on horseback and on foot; he must be well acquainted with the management of the horses, that are used to transport the cannon, and to mount the flying artillery; must know how to harness them to the cannon; how to move and manœuvre with them on ground of every kind; how to repair, at the moment, any sudden damage; and must be thoroughly acquainted with tactics, especially with the peculiarities of the ground, and with the art of availing himself of them most judiciously in the disposition of his artillery. He must, finally, be able to attack or

defend any position; he must have an accurate acquaintance with the science of fortification; but especially he must be practically skilled in throwing up batteries and other field-works, so that he may be able, by disposing his artillery before or within a strong place, to assist the engineer most effectually in its attack or defence. Besides, the artillerist has often the regulation of the lights, and other signals, in time of war, of the fire-works in peace, &c. All this must be learned by experience, and by the study of auxiliary sciences. Mathematics (particularly the doctrine of curves, to calculate the path of the balls), physics and chemistry are very necessary, in order to understand the effect of powder, and the manufacturing of ammunition, as well as that of all kinds of fire-works. A knowledge of mechanics is, also, very useful, for understanding the theory of carriages, for moving large loads, when necessary, and on many other occasions.

On the principles of dynamics it can be easily shown that, were there no resistance to the motion of a bullet in consequence of the air, the path of the ball would be that curve denominated the parabola. Were it not, then, for the resistance of the atmosphere, it would be easy to determine with precision the range of a ball, of a given weight, discharged with a given force, in a certain direction. It was for a long time considered that the resistance of the air was so trifling as not to be worthy of being taken into account; and, accordingly, the principles of gunnery were taught upon the parabolic theory. Mr Robins, Dr Hutton, and others, made extensive experiments, with a view to determine the amount of the resistance of the air. In fig. 13, plate LXI., a vessel is represented as passing through a strait, between two batteries, amid a discharge of artillery. The battery at A is much higher than the hull of the vessel, and, accordingly, the cannon is inclined so that its muzzle is lower than its breech. It is so situated in order that the bullet which it discharges may strike the hull of the vessel. But the axis of the gun is not pointed directly at the spot where the ball is intended to strike; for as, on account of the action of gravity, the ball in its passage from the gun to the object, is continually drawn towards the earth, it will therefore describe a curve, as shown by the curve line AB. Were the ball to move in a straight line, as the gun is now pointed, it would pass over the hull of the ship and strike the opposite battery at C. The cannon, at this last station, is also shown as discharging a bullet at the vessel, and it is made to point a little upwards in order to compensate for the continual falling of the ball during its flight. The vessel is shown as discharging a gun at E so as to strike the battery at C; but the elevation of the piece not being sufficient, the bullet is shown as having struck the water at F, and as having risen again at G, exhibiting an appearance similar to what is called ducks and drakes, when a stone is thrown at a small angle to the surface of the water. From these statements it will be easy to perceive, that very nice adjustment is necessary in giving the requisite angle of elevation or depression to the gun, and of proportioning the charge of powder, so that the ball shall be sent to the proper distance and in the proper direction. Theory and experiment have furnished rules for this purpose, of the most approved of which the following is a synopsis.

As the square root of the weight of the shot is to the square root of double the weight of powder, (both in lbs.) so is 1600 to the velocity of the shot at the commencement in feet per second. Multiply the square root of the diameter of the ball, in inches, by 175·5, and for shells by 147·3, the product is the velocity of it, at the end of the flight, i. e., the terminal velocity. The horisontal range is found by multiplying twice the height to which the ball would be carried, by the sine of double the angle of elevation; or the range of any one elevation is to another, as twice the sines of these elevations are to each other, and the ranges are nearly proportional to the charges.

GUNPOWDER is a mixture of saltpetre, sulphur, and charcoal. If we may believe the relations of the missionaries, and the reports of the Chinese historians, the Chinese were first acquainted with the application of gunpowder. Perhaps it proceeded from them to the Arabs; for, in 1331, the Moors used it in their operations before Alicant, and certainly in 1342, at Algesiras; in 1250, the Arabs probably used a mixture similar to gunpowder before Damietta, and perhaps also in a naval engagement in the year 1085. Among the Europeans, the traces of this invention are still more ancient; for the Greek fire, which was first employed in 668, must have, at least, contained saltpetre mixed with pitch, naphtha, &c., since it was customary, by means of it, to hurl stones from metallic tubes. The first information of the knowledge of the Europeans with regard to the chemical mixture of powder, is found in the ninth century, in a book composed by Marcus Gracchus, preserved in the university of Oxford, which also accurately explains its composition. Roger Bacon (who died in 1294) was likewise acquainted with the power which saltpetre has, when set on fire, of producing a thundering report. The discoverer of the power of powder, when confined and set on fire, of propelling heavy bodies, was according to common report, Berthold Schwarts, a monk, who is said to have lived at Mayence, between 1290 and 1320. He, in some of his experiments in alchemy, had put the mixture into a mortar, and, having accidentally dropped into it a spark of fire, to his astonishment, saw the pestle fly off into the air. Other traditions attribute this invention to Constantine Antlits of Cologne (see De Boucher's *Mémoire sur l'Origine de la Poudre à Canon*). However this may be, powder was scarcely applied to military uses before 1350, and the accounts of the use of cannons in the battles of Crécy (1346), Poictiers, and still earlier engagements, have arisen from the various significations of the word *cannon*. In 1356, powder is mentioned in the accounts of the treasury of Nuremburg; in 1360, the house of assembly at Lubeck was burned by the imprudence of the powder manufacturers; and, in 1365, the Margrave of Misnia had pieces of artillery. In the course of a few years afterwards, it was known over all Europe. Thus the first traces of this invention would appear to be found in Germany; other nations, however, have put in their claims to this honour.

The proportion of the ingredients in the composition of gunpowder, is different in different countries: in the Prussian powder-mills, 75 parts of saltpetre, 11½ parts of sulphur, and 13½ parts of charcoal are used; but in the French mills, 75 parts of saltpetre, 12½ of coal, and 12½ of sulphur. In the manufacture of this article, which is carried on in very different ways, much depends upon the goodness of the ingredients. The crude saltpetre is broken up, moistened, and exposed to the action of a slow fire, continually skimmed and violently agitated, till all the moisture evaporates, and the saltpetre remains in the form of a fine powder. The sulphur is pulverized after having been well purified. The charcoal is that derived from the alder or any other soft wood or bushes, as, for example, hemp stalks, which are burned with great care in a confined room, and reduced to a fine powder. These three ingredients are then moistened, brought under a stamping, or more commonly a rolling mill, where two metallic, or, which are better,

marble cylinders, turn round a fixed vertical wooden pillar, and crush to pieces the mixture, which lies upon a round smooth surface of the same material. Other mills effect this bruising operation by several large iron runners, revolving upon a metallic plate, similar to a painter's grinding stone, or by a rapid revolution of the mixture in casks containing metallic balls. After the mixture, in some one of these ways, has been acted on in the mills for the space of six or eight hours, and when the ingredients are united, and form one homogeneous mass, it is pressed, while yet wet, by means of cylindric rollers of wood, through a sieve of perforated parchment, by which the powder is formed into grains. In other mills, this process of forming it into grains takes place after the powder has been pressed between two boards into a solid cake, and then submitted twice to the operation of a grooved roller. The powder, after it has been grained, is spread upon boards in the drying-houses, and exposed to the strong heat of an oven for two days. In order to prevent its taking fire, the oven is well lined with clay and copper. Of late years, this process of drying has been sometimes effected by means of steam. Finally, the powder is sorted by being passed through several sieves. In the first or coarsest, remains what is entirely useless; through the second passes the second sized, or cannon powder; and through the third and last passes the finest, or musket powder. The powder, thus prepared, is packed in oaken casks. In order to provide against accidents, the English use copper casks or vessels, with the tops screwed on. Good gunpowder must be of a slate colour, uniform, round, and pure grain, and also have a uniform colour on being broken up; nor should it leave behind it, either on the hand or on paper, any black spots. When set on fire, it should burn at once, without crackling or leaving upon paper any appearances of its combustion. When applied to the tongue, the taste should be extremely cooling. In order to prove its strength, let any person apply an accurately fitting ball to a small mortar, and the distance to which the ball is thrown will prove the strength of the powder. The French government *eprouvette* is a mortar seven French inches in diameter, and three ounces of powder must throw a copper globe, of sixty pounds weight, 300 feet; otherwise the powder is not admissible. An *eprouvette* is sometimes used which is inaccurate; the powder throws back the cover of a small mortar, and with it a wheel, which catches in a steel spring; the strength is determined by the tooth, at which the wheel remains fixed. This method is defective, because the spring is weakened by use. Another method is, to suspend a small cannon as a pendulum, and to judge of the strength of the powder by the force of the recoil, which will describe a greater or less arc of a circle.

In the preservation of powder, fire and water must both be carefully guarded against. Powder destined for military purposes, should be deposited in an airy building, removed at least 1000 paces from any habitation, provided with lightning rods, and surrounded with walls, ditches, and palisadoes; there should be a guard constantly set, to prevent the introduction of fire, and to hinder all persons from entering, who have things about them that will produce fire. These buildings should contain openings for the free passage of the air; the casks should stand upon a platform of wood, at a distance from the wall, and the powder itself should be sunned and dried every one or two years. If the powder is to be kept in damp places, as, for example, in the casemates (arched passages under ground) of fortresses, the walls should be internally covered with lead, and a vessel filled with unslacked lime placed in the middle of the apartment, so that the moisture of the atmosphere may be attracted by the lime. In the transportation of gunpowder, dust, which is liable to penetrate the cracks and joints of the casks, should be carefully guarded against, as the friction may produce explosion. It is also necessary for its good preservation, that the carriages and vessels in which it is transported should be water-tight. We may effectually preserve it from moisture, by dipping the cask and the sackcloth covering into melted pitch. Vessels prepared in this way, and containing powder, may be immersed in the water for weeks, without having their contents in the least injured.

The effects of this substance, when set on fire, are truly wonderful. When powder is heaped up in the open air, and then inflamed, it detonates without report or effect. A small quantity of powder left free in a room, and fired, merely blows out the windows; but the same quantity, when confined in a bomb within the same chamber, and inflamed, tears in pieces and sets on fire the whole house. Count Rumford loaded a mortar with one twentieth of an ounce of powder, and placed upon it a 24 pound cannon, weighing 8081 pounds; he then closed up every opening as completely as possible, and fired the charge, which burst the mortar with a tremendous explosion, and raised up this immense weight. —Mr Robins, engineer general to the East India company, made experiments in order to ascertain the elastic force of the vapour produced by inflaming gunpowder, and concluded that the weight of the vapour was about three-tenths of the weight of the powder from which it was produced, and 244 times its bulk when allowed to expand to an elasticity equal to that of the atmosphere. To this expansive force of the gas evolved from the powder, must be added the effect of the heat, raised during the combustion, which will at least increase the elasticity four times, making the elastic force 1000 atmospheres, in round numbers, which, reckoning one atmosphere as equal to a pressure of 14lbs. to the square inch, will give, for the force of the gas of confined gunpowder, a pressure of about six and a half tons to each square inch. The effect of powder is much impaired by the humidity of the air, but not by its density. Gunpowder may be heated to a point just below that of *faint red*, when it will be decomposed by the sulphur burning off, and it would appear that explosion does not take place under a temperature of 600° Fahrenheit. Whence such and similar effects arise, no chemist has as yet been able to explain; and the greater part of the explanations hitherto made are nothing but descriptions of facts. The best explanation is, that the azote and oxygen gases of the saltpetre, and the carbonic acid gas from the charcoal, which had hitherto been in a solid state, are set free, and the expansive power of all these gases requires much more room than they previously occupied. They now endeavour to overcome the obstructions to their expansion, and this tendency is very much increased by the intense heat generated by the gases. The confined steam operates in the same way, although this is not the only cause of the phenomenon, as Rumford supposes.

GUNPOWDER PLOT; a conspiracy formed in the second year of the reign of James I. (1604), for the purpose of destroying the king and parliament at a blow. The Roman Catholics having been disappointed in their expectations of indulgence from James, Catesby and Percy, two Catholic gentlemen of ancient family, with a few others of their persuasion, determined to run a mine below the hall in which parliament met, and, on the first day of the session, when the king and the royal family would be present, involve all the enemies of the Catholic reli-

gion in one common ruin. A vault below the house of lords, which had been used to store coals, was hired, two hogsheads and thirty-six barrels of powder lodged in it, the whole covered with faggots, and the doors thrown open so as to prevent suspicions. As the young prince Charles and the princess Elisabeth would be absent, measures were taken to have them raised, and Elisabeth proclaimed queen. The secret of the conspiracy was communicated to more than twenty persons, and had been faithfully kept for near a year and a half. Ten days, however, before the meeting of parliament, a Catholic peer received a note from an unknown hand, advising him not to attend at the parliament, as it would receive a terrible blow. This he communicated to the secretary of state, lord Salisbury, who, although apprehending nothing, thought proper to lay it before the king. James saw the matter in a more serious light; and, on searching the vaults below the houses of parliament (Nov. 5, 1605), Guy Fawkes, an officer in the Spanish service, who had been employed to fire the powder, was found at the door, with the matches in his pocket, and the gunpowder in the vault was discovered. Fawkes was put to the torture, and made a full discovery of the conspirators, who, with their attendants, to the number of eighty persons, had assembled in Warwickshire, determined to defend themselves to the last. Percy and Catesby were killed in the attack; the others were made prisoners and executed.

Lingard (History of England, vol. ix, chap. 1.) gives a very full account of the conspiracy, which does not materially differ from the statement above given. It has been, however, asserted by others, that it was all a plot of Salisbury's, to effect the ruin of the Catholics, and that the warning came from his hands. In support of this, they allege that most of the conspirators declared themselves ignorant of the extent of the conspiracy, the Jesuits, who were implicated in it, protested their innocence, and that the French ambassador, who made inquiries on the spot, entirely exculpates them. (See *Lettres et Négociations d'Antoine Lefevre de la Boderie.*) In the calendar of the church of England, the 5th of November is duly noticed as a holyday at the public offices; and the Common Prayer Book contains "A Form of prayer with thanksgiving, to be used yearly upon the fifth day of November, for the happy deliverance of king James I.," &c. It is customary for boys in England to make an effigy representing Guy Fawkes, which they carry about, singing certain verses,* and asking for materials to burn the figure.

GUNTER, EDMUND; an excellent English mathematician, who flourished in the reign of James I., and distinguished himself by his inventions, which have never yet been superseded, though some of them have been subsequently much improved.

GUNTER'S CHAIN; the chain in common use for measuring land according to the true or statute measure; so called from the name of its inventor. The length of the chain is sixty-six feet, or twenty-two yards, or four poles of five yards and a half each; and it is divided into 100 links of 7.92 inches each. 10,000 square links make one acre.

* These verses are:

"Remember, remember
The fifth of November,
Gunpowder treason, and plot!
We know no reason
Why gunpowder treason
Should ever be forgot.
Holla, boys! Huzza!

"A stick and a stake,
For king William's sake;
A stick and a stump
For Guy Fawkes's rump.
Holla, boys! Huzza!"

GUNTER'S LINE; a logarithmic line, usually graduated upon scales, sectors, &c. It is also called the *line of lines* and *line of numbers*, being only the logarithms graduated upon a ruler, which therefore serves to solve problems instrumentally, in the same manner as logarithms do it arithmetically. It is usually divided into a hundred parts, every tenth of which is numbered, beginning with 1, and ending with 10; so that, if the first great division, marked 1, stand for one-tenth of any integer, the next division, marked 2, will stand for two-tenths, 3, three-tenths, and so on; and the intermediate division will, in like manner, represent one hundred parts of an integer. If each of the great divisions represent ten integers, then will the lesser divisions stand for integers; and if the great divisions be supposed each 100, the subdivisions will be each 10.

Use of Gunter's Line:—1. *To find the product of two numbers.* From 1 extend the compasses to the multiplier; and the same extent, applied the same way from the multiplicand, will reach to the product. Thus, if the product of 4 and 8 be required, extend the compasses from 1 to 4, and that extent, laid from 8 the same way, will reach to 32, their product.—2. *To divide one number by another.* The extent from the divisor to unity will reach from the dividend to the quotient; thus, to divide 36 by 4, extend the compasses from 4 to 1, and the same extent will reach from 36 to 9, the quotient sought.—3. *To find a fourth proportional to three given numbers.* Suppose the numbers 6, 8, 9: extend the compasses from 6 to 8; and this extent, laid from 9 the same way, will reach to 12, the fourth proportional required.—4. *To find a mean proportional between any two given numbers.* Suppose 8 and 32. extend the compasses from 8, in the left hand part of the line, to 32 in the right; then, bisecting this distance, its half will reach from 8 forward, or from 32 backward, to 16, the mean proportional sought.—5. *To extract the square root of a number.* Suppose 25: bisect the distance between 1 on the scale and the point representing 25: then half of this distance, set off from 1, will give the point representing the root 5. In the same manner, the cube root, or that of any higher power, may be found by dividing the distance on the line, between 1 and the given number, into as many equal parts as the index of the power expresses; then one of those parts, set from 1, will find the point representing the root required.

GUNTER'S QUADRANT is a quadrant made of wood, brass, or some other substance; being a kind of stereographic projection on the plane of the equinoctial, the eye being supposed in one of the poles; so that the tropics, ecliptic, and horizon form the arches of circles; but the hour circles are other curves, drawn by means of several altitudes of the sun for some particular latitude every year. This instrument is used to find the hour of the day, the sun's azimuth, &c., and other common problems of the sphere or globe; as also to take the altitude of an object in degrees.

GUNTER'S SCALE, usually called, by seamen, the *gunter*, is a large plain scale, having various lines upon it, of great use in working the cases or questions in navigation. This scale is usually two feet long, and about an inch and a half broad, with various lines upon it, both natural and logarithmic, relating to trigonometry, navigation, &c. On the one side are the natural lines, and on the other the artificial or logarithmic ones. The former side is first divided into inches and tenths, and numbered from 1 to 24 inches, running the whole length, near one edge. One half of the length of this side consists of two plane diagonal scales, for taking off

dimensions for three places of figures. On the other half of this side, are contained various lines relating to trigonometry, as performed by natural numbers, and marked thus, viz., *Rhumb*, the rhumbs or points of the Compass; *Chord*, the line of chords; *Sine*, the line of sines; *Tang.*, the tangents; *S. T.*, the semi-tangents; and at the other end of this half, are, *Leag.*, leagues or equal parts; *Rhumb*, another line of rhumbs; *M. L.*, miles of longitude; *Chor.*, another line of chords. Also, in the middle of the foot are *L.* and *P.*, two other lines of equal parts; and all these lines on this side of the scale serve for drawing or laying down the figures to the cases in trigonometry and navigation. On the other side of the scale are the following artificial or logarithmic lines, which serve for working or resolving those cases, viz., *S. R.* the sine rhumbs; *T. R.*, the tangent rhumbs; *Numb.*, line of numbers; *Sine*, sines; *V. S.*, versed sines; *Tang.*, the tangents; *Meri.*, meridional parts; *E. P.*, equal parts.

GUNWALE, or GUNNEL OF A SHIP, is that piece of timber which reaches on either side of the ship, from the half-deck to the fore-castle, being the uppermost bend, which finishes the upper works of the hull in that part, and wherein they put the stanchions which support the waist-trees. This is called the *gunwale*, whether there be guns in the ship or not.—The lower part of any port, where any ordnance is, is also termed the *gunwale*.

GURNARD (*trigla*. Lin.). Τρυγλα, which the Romans called *mullus*, does not belong to this genus, though it was included in it by Artedi. These fish, which are marine, all afford excellent food. They have a scaly body, of a uniform shape, compressed laterally, and attenuated towards the tail. The head is broader than the body, and slopes towards the snout, where it is armed with spines; the upper jaw is divided, and extends beyond the lower. The eyes are near the top of the head, large and prominent, particularly the upper margin of the orbits. The dorsal fins are unequal, the first short, high, and aculeate; the second long, sloping, and radiate. The ventral and pectoral are uncommonly large, and from their base hang three loose and slender appendages. Many of the species utter a peculiar noise when taken; many of the species are provided with pectoral fins, sufficiently large to enable them to spring out of the water. One of the species has been denominated the *lyre fish*, on account of its bifurcated rostrum, which bears a faint resemblance to that instrument.

GUSTAVUS I., king of Sweden, known under the name of *Gustavus Vasa*, born in 1490, was a son of duke Erich Vasa, of Gripsholm, and a descendent of the old royal family. He was one of those great men, whom Nature so seldom produces, who appear to have been endowed by her with every quality becoming a sovereign. His handsome person and noble countenance prepossessed all in his favour. His artless eloquence was irresistible; his conceptions were bold, but his indomitable spirit brought them to a happy issue. He was intrepid, and yet prudent, full of courtesy in a rude age, and as virtuous as the leader of a party can be. When the tyrant Christian II. of Denmark sought to make himself master of the throne of Sweden, Gustavus resolved to save his country from oppression; but the execution of his plans was interrupted, as Christian seized his person, and kept him prisoner in Copenhagen as a hostage, with six other distinguished Swedes. When, at last, in 1519, he heard of the success of Christian, who had nearly completed the subjection of Sweden, he resolved while yet in prison, that he would deliver his country. He fled in the dress of a peasant, and went more than fifty miles the first day, through an unknown country. In Flensborg, he met with some cattle drivers from Jutland. To conceal himself more securely, he took service with them, and arrived happily at Lubeck. Here he was indeed recognised, but he was taken under the protection of the senate, who even promised to support him in his plans, which he no longer concealed. He then embarked, and landed at Calmar. The garrison to whom he made himself known, refused to take the part of a fugitive. Proscribed by Christian, pursued by the soldiers of the tyrant, rejected both by friends and relations, he turned his steps towards Dalecarlia, to seek assistance from the inhabitants of this province. Having escaped with difficulty the dangers which surrounded him, he was well received by a priest, who aided him with his influence, money, and counsel. After he had prepared the minds of the people, he took the opportunity of a festival, at which the peasants of the canton assembled, and appeared in the midst of them. His noble and confident air, his misfortunes, and the general hatred against Christian, who had marked the very beginning of his reign by a cruel massacre at Stockholm—all lent an irresistible power to his words. The people rushed to arms; the castle of the governor was stormed: and, emboldened by this success, the Dalecarlians flocked together under the banners of the conqueror. From this moment, Gustavus entered upon a career of victory. At the head of a self-raised army, he advanced rapidly, and completed the expulsion of the enemy. In 1521, the estates gave him the title of *administrator*. In 1523, they proclaimed him king. Upon receiving this honour, he appeared to yield with regret to the wishes of the nation; but he deferred the ceremony of the coronation, that he might not be obliged to swear to uphold the Catholic religion and the rights of the clergy. He felt that the good of the kingdom required an amelioration of the affairs of the church; and he felt, too, that this could only be effected by a total reform. His chancellor, Lars Anderson, advised him to avail himself of the Lutheran doctrines to attain his object. Gustavus was pleased with this bold plan, and executed it more by the superiority of his policy than of his power. While he secretly favoured the progress of the Lutheran religion, he divided the vacant ecclesiastical dignities among his favourites; and, under pretence of lightening the burdens of the people, he laid upon the clergy the charge of supporting his army. Soon after, he dared to do still more: in 1527, he requested and obtained from the estates the abolition of the privileges of the bishops. In the mean while, the doctrines of Luther were rapidly spreading. Gustavus anticipated all seditious movements, or suppressed them. He held the malcontents under restraint; he flattered the ambitious; he gained the weak; and, at last, openly embraced the faith which the greater part of his subjects already professed. In 1530, a national council adopted the confession of Augsburg for their creed. Gustavus, after having, as he said, thus conquered his kingdom a second time, had nothing more to do but to secure it to his children. The estates granted this request also, and in 1542, abdicated their right of election, and established hereditary succession. Although Sweden was a very limited monarchy, Gustavus exercised an almost unlimited power; but this was allowed him as he only used it for the benefit of his country, and he never violated the forms of the constitution. He perfected the legislation; formed the character of the nation; softened manners; encouraged industry and learning, and extended commerce. After a glorious reign of thirty-seven years, he died, in 1561, at the age of seventy. See Von Archenholz's Ge-

chichte Gustavs Wasa (History of Gustavus Vasa), ublished at Tubingen, 1801, 2 vols.

GUSTAVUS II., ADOLPHUS, the greatest monarch f Sweden, was a son of Charles IX. (who ascended he Swedish throne upon the deposition of Sigismund), nd a grandson of Gustavus Vasa. He was born at tockholm, in 1594, and received a most careful edu- ation. At the age of twelve, he entered the army, nd, at sixteen, directed all affairs, appeared in the ate council and at the head of the army, obeyed as soldier, negotiated as a minister, and commanded s a king. In 1611, after the death of Charles IX., he estates gave the throne to the young prince, at the ge of eighteen, and, without regard to the law, de- lared him of age; for they saw that only the most nergetic measures could save the kingdom from sub- ection, and that a regency would infallibly cause its in. The penetrating eye of Gustavus saw in Axel Oxenstiern, the youngest of the counsellors of state, he great statesman, whose advice he might follow n the most dangerous situations. He united him to imself by the bands of the most intimate friendship. Denmark, Poland, and Russia were at war with Swe- len. Gustavus, unable to cope at once with three uch powerful adversaries, engaged, at the peace of Knared, in 1613, to pay Denmark 1,000,000 dollars, ot received back all that had been conquered from Sweden. After a successful campaign, in which, according to his own confession, his military talent as formed by James de la Gardie, Russia was en- irely shut out from the Baltic by the peace of Stol- owa, in 1617. But Poland, although no more suc- essful against him, would only consent to a truce for ix years, which he accepted, partly because it as in itself advantageous, partly because it af- orded him opportunity to undertake something de- isive against Austria, whose head, the emperor Fer- linand II., was striving, by all means, to increase his ower, and was likewise an irreconcilable enemy of he Protestants. The intention of the emperor to ake himself master of the Baltic, and to prepare n attack upon Sweden, did not admit of a doubt. But a still more powerful inducement to oppose the rogress of his arms, Gustavus Adolphus found in he war between the Catholics and the Protestants, hich endangered at once the freedom of Germany nd the whole Protestant church. Gustavus, who as truly devoted to the Lutheran doctrines, deter- ined to deliver both. After explaining to the es- ates of the kingdom, in a powerful speech, the esolution he had taken, he presented to them, with ears in his eyes, his daughter Christina, as his heir- ss, with the presentiment that he should never again ee his country, and intrusted the regency to a cho- en council, excluding his wife, whom, however, he ndeerly loved. He then invaded Germany in 1630, nd landed, with 13,000 men, on the coasts of Pomer- nia. What difficulties opposed him on the part of hose very princes for whose sake he had come; how is wisdom, generosity, and perseverance triumphed ver inconstancy, mistrust, and weakness; what deeds f heroism he performed at the head of his army, and ow he fell, an unconquered and unsullied general, at he battle of Lutzen, Nov. 6, 1632, may be seen in the rticle *Thirty Years' War*. The circumstances im- ediately attending his death have long been relat- d in various and contradictory ways; but we now now, from the letter of an officer who was wounded t his side, that he was killed on the spot, by an Aus- ian ball. The king's buff coat was carried to ienna, where it is still kept; but Bernhard von eimar carried the body to Weissenfels to give it to he queen. There the heart was buried, and re- ained in the land for which it had bled.

GUSTAVUS III., king of Sweden, born in 1746, was the eldest son of Adolphus Frederic, duke of Holstein-Gottorp, who was chosen to succeed to the Swedish throne in 1743, and of Ulrica Louisa, sister of Frederic II. of Prussia. Count Tessin, to whose care the prince was intrusted from his fifth year, endeavoured to form his mind and character with a constant view to his future destination, and was especially anxious to restrain the ambition of the youth, and to inspire him with respect for the constitution of Sweden. His successor, count Scheffer, pursued the same course; but the ambition of the young prince was not eradicated. His docility of disposition, affability of manners, and gentleness, concealed an ardent thirst for power and action. Manly exercises, science and the arts, the pleasures of society, and displays of splendour, united with taste, appeared to be his favourite occupations. Sweden was then distracted by factions, especially those of the *caps* and *hats*, by which names the partisans of Russia and France were distinguished. Both parties, however, were united in their efforts to weaken the royal power as much as possible. The father of Gustavus, a wise and benevolent prince, had found his situation quite perplexing. Gustavus himself encountered, with great boldness and art, the difficulties which met him on his accession to the throne, after his father's death, February 12, 1771. He established the order of Vasa, to gain over some enterprising officers of the army, and a party was formed, principally consisting of young officers devoted to him. Emissaries were sent to gain over the troops stationed in the other parts of the kingdom. Some influential individuals, among whom were the counts Hermanson and Scheffer, had also joined the royal party. A new plan was devised, and the parts so distributed, that the king's brothers were to begin the revolution in the country, while the king himself should commence operations in the capital. Agreeably to this plan, the commandant of Christianstadt, captain Hellichius, one of the truest and boldest adherents of the king, August 12, 1772, caused the city gates to be shut, and all the entrances to be guarded, and published a manifesto against the states general. Prince Charles then appeared before Christianstadt, and commenced a pretended siege, wherein no one was injured. The king, in the mean time, played his part so perfectly, as to dissipate the suspicions of the secret committee of the states. The committee ordered patrols of the citizens in the capital, which the king always attended, and, by his insinuating address, gained over to his cause the principal part of the soldiery and many of the officers. While he was thus preparing for the decisive moment, he appeared serene and composed; and, on the evening preceding the accomplishment of the project, he held a splendid court, which he enlivened by his affability and gayety. On the following day, August 19, 1772, after taking a ride, the king went to the council of the estates, at the castle, where, for the first time, he entered into a warm dispute with some of the counsellors. He then went to the arsenal, on horseback, where he exercised the guard. In the mean time, the officers, upon whom he thought he could depend, assembled, in consequence of a secret order to that effect, and accompanied him to the castle, where, at that time, they were changing guard, so that those who were retiring, and those who were mounting guard, met. With the entrance of the king into the castle, the revolution began. The king then collected the officers about him, in the guard room, unfolded to them his plan, and demanded their support. Most of them were young men, and were immediately gained over by the thought of delivering their country. Three older officers, who refused, had their swords taken from them by the king. The rest

swore fidelity to his cause. The king's address to the soldiers was received with loud acclamations. He then set a guard over the entrances to the hall of the council, and commanded them to remain quiet, after which he returned to the arsenal, amidst the acclamations of the people, and secured the adherence of the regiments of artillery. A public proclamation exhorted the inhabitants of Stockholm to remain tranquil, and to obey no orders but those of the king. Cannon were planted, guards distributed, and several persons arrested, by way of precaution. Thus was the decisive blow struck without bloodshed, and the king returned to the castle, where he received the congratulations of foreign ambassadors, whom he had invited to his table. On the following day, the magistrates of the city took the oath of allegiance in the great market-place, amid the acclamations of the people. But it was necessary for the estates also to approve of the revolution, and to accept the new constitution, by which the royal power was enlarged, not so much at the expense of the estates as of the council. The next day, they were summoned to meet at the castle, where they found themselves without any attendants. The court of the castle was guarded by soldiers, cannon were planted before the hall of assembly, and a cannoneer stationed at each piece with a lighted match. The king appeared with a numerous retinue of officers and unusual pomp, depicted, in a forcible manner, the situation of the kingdom and the necessity of a reform, declared the moderation of his views, and caused the new constitution to be read, which was immediately approved and confirmed by subscription and oath. Almost all the public officers retained their stations; those persons who had been arrested were set at liberty, and the revolution was completed. The king now exerted himself to promote the prosperity of his country. In 1783, he went through Germany to Italy, to use the baths of Pisa, and returned to Sweden the following year through France. During his absence, a famine had destroyed thousands of his subjects; the people murmured; the nobility rose against the king's despotic policy, and the estates of the kingdom, in 1786, rejected almost all his propositions, and compelled him to make great sacrifices. A war having broke out between Russia and the Porte, in 1787, Gustavus, in compliance with former treaties, determined to attack the empress of Russia, who had promoted the dissensions of Sweden. War was declared in 1788; but, when the king attempted to commence operations by an attack on Friedrichsham, he was deserted by the greatest part of his army, who refused to engage in an offensive war. The king retired to Haga, and thence to Dalecarlia, in search of recruits. He soon collected an army of determined defenders of their country, and delivered Gothenburg, which was hard pressed by the Danes. Meanwhile, however, the insurrection of the Finnish army, which had concluded an armistice with the Russians, still continued. The critical situation of the kingdom required the convocation of the estates. To overcome the opposition of the nobility, he constituted a secret committee, of which the nobility chose twelve members from their own number, and each of the estates, who were devoted to the king, six. The nobility, however, continued their opposition to the king, who, being encouraged by the other estates to avail himself of every measure he might think advisable, finally took a decisive step, arrested the chiefs of the opposition, and exacted the adoption of the new act of union and safety, April 3, 1789, which conferred on him more extensive powers. The war was now prosecuted with great energy and with various success. Bloody battles, especially by sea, were gained and lost; but although Gustavus valiantly opposed superior forces, yet the desperate state of his kingdom, and the proceedings of the congress at Reichenbach, inclined him to peace, which was concluded on the plain of Werelæ, August 14, 1790. Untaught by the warnings of adversity, he now determined to take part in the French revolution, and to restore Louis XVI. to his throne. He wished to unite Sweden, Russia, Prussia, and Austria, and to place himself at the head of the coalition. For this purpose, in the spring of 1791, he went to Spa and Aix-la-Chapelle, concluded a peace with Catharine, and convened a meeting of the estates at Gefle, in January, 1792, which was dissolved, in four weeks, to the satisfaction of the king. Here his assassination was agreed upon. The counts Horn and Ribbing, the barons Bielke and Pechlin, colonel Liliehorn, and many others, had conspired to murder him, and restore the old aristocracy. Ankarstrom (q. v.), who personally hated the king, begged that the execution might be intrusted to him. A masquerade at Stockholm, on the night of March 15, 1792, was chosen for the perpetration of the crime. Just before the beginning of the ball, the king received a warning note; but he went, at about eleven o'clock, with count Essen, stepped into a box, and, as all was quiet, into the hall. Here a crowd of maskers surrounded him, and, while one of them (count Horn) struck him upon the shoulder, with the words, "Good night, mask," the king was mortally wounded, by Ankarstrom, with a shot in the back. With remarkable presence of mind, he immediately took all the necessary measures. He expired March 29, after having arranged the most important affairs with serenity (see *Armfelt*), and signed an order for proclaiming his son king.

GUSTAVUS IV., ADOLPHUS, the deposed king of Sweden, was born Nov. 1, 1778, and, on the death of his father, Gustavus III. (March 29, 1792), was proclaimed king. He remained four and a half years under the guardianship of his uncle, Charles, duke of Sudermannland, then regent (afterwards king Charles XIII.), and ascended the throne Nov. 1, 1796. In his eighteenth year, he was betrothed to a princess of Mecklenburg, when the empress Catharine invited him to St Petersburg, with the design of marrying him to her grand-daughter Alexandra Pawlowna. Every thing was ready for the marriage, and the assembled court waited for the young king, when he refused to sign the marriage contract, because it embraced some articles which he would not concede to the empress; among others, one securing to the young queen the free exercise of the Greek religion in her palace, which was contrary to the fundamental laws of the Swedish kingdom. Nothing could change the determination of Gustavus; he retired, and shut himself up in his chamber, so that a stop was put to the whole ceremony. Soon after (October, 1797), he married Frederica, princess of Baden, sister-in-law of the emperor Alexander and the king of Bavaria. As a striking example of his folly, it is related, that he was once on the point of commencing a bloody war with Russia, because he insisted on painting a boundary bridge, with the Swedish colour on the Russian side. When the northern powers were negotiating the renewal of the armed neutrality, directed especially against Britain, he went to St Petersburg in 1801, to hasten the conclusion of the treaty. He was well received by Paul I., who bestowed on him the cross of St John of Jerusalem. In July, 1803, he visited the court of his father-in-law at Carlsruhe, in order to gain over the emperor and the princes of the empire to the project, which then seemed impracticable, of again placing the Bourbons at the head of the French government. He was in Carlsruhe when (March 15, 1804), the duke D'Enghien was seized

the territories of Baden. Gustavus immediately nt his aid-de-camp to Paris, with a letter to Bona-rte, for the purpose of saving the duke, who, how-er, was shot before the letter was received. Gus-us sent a remonstrance to Ratisbon, on this subject, d was, excepting Alexander I., the only sovereign o openly expressed his indignation at this deed. s rupture with France, his alliance with Great Bri-n and Russia, and his coolness towards the king Prussia, to whom he sent back the black eagle, be-use it had been bestowed on Napoleon, were the nsequence of his hatred of the new emperor of ance. It having been calculated that the number 6 was contained in the name of Napoleon Bona-rte, Gustavus believed him to be the beast de-ribed in the Revelations, whose reign was to be ort, and for whose destruction he was called! His bassador delivered to the German diet of 1806 a claration of the king that he would take no part in transactions, so long as its acts were under the luence of usurpation; he also rejected the offers of ace made by Napoleon a short time before the ace of Tilsit; and, July 3, 1807, broke the truce ith France, and even refused the mediation of ssia and Prussia, after the peace of Tilsit. He turned the Russian order of St Andrew, as he had rmerly the Prussian order of the eagle, and, by his herence to Britain, plunged his people into a dis-vantageous war with Russia, and became anew the emy of Prussia and then of Denmark. Finland s lost, and a Danish army threatened the frontiers Sweden. Deaf to all solicitations to conclude a ace, he alienated the nobility and the army by his prices, and exasperated the nation by the weight the taxes. Having finally provoked the enmity of ritain, by seising the British ships in the Swedish rts, when that power endeavoured to bring him to ason, it appeared plain to every one, that he was ady to sacrifice the welfare of his people to his sions. A plot was secretly formed against him; e western army, assured that the Danes would not ss the frontiers, took up its line of march to Stock-lm, where the principal conspirators were plotting the immediate presence of Gustavus. It was only venty miles from the capital when Gustavus heard its approach. He hastened from Haga, where he s residing with his family, to Stockholm, to defend s capital against the rebels. But he altered his an, and determined to go to Linkioping with the oops which were in Stockholm. He was about to move the bank from the capital, but first required to advance him 2,000,000 dollars, or the greatest m which could be raised. The commissaries re-sed to comply; Gustavus showed an intention to e force; upon which it was resolved to anticipate m. Such was the situation of affairs on the evening March 12, 1809. The king spent that night in eparing every thing for his departure, and the oment arrived when he was to take the money from e bank. Three doors of the palace were already cured, and all the officers were assembled, as it s the usual day of parade. Field-marshal Kling-or and general Adlerkreus, however, once more tempted the effect of conciliatory propositions, hen Gustavus highly offended them by his insulting anner. Adlerkreus then called the marshal Silber-arre and five adjutants, demanded of the king his ord, and declared him a prisoner in the name of e nation. Gustavus attempted to strike him with s sword, but it was wrested from him. Upon his y for help, some of his faithful followers forced the ors; but they were overpowered by thirty of the nspirators, who rushed in upon them. During this ruggle, Gustavus escaped, but was seized upon the airs and brought back to his chamber by one of his servants, where he broke out into an ungovernable fit of rage. All the entrances of the castle were closely guarded. At noon Charles duke of Sudermann-land, published a proclamation, declaring that he had taken the government into his own hands. The revo-lution was completed in a few hours. Gustavus now submitted quietly. Perhaps his religious enthusiasm was the cause of his present state of mind. At one o'clock at night, he was carried to Drotningholm. His wife and children were obliged to remain in Haga. March 24, he was removed to Gripsholm, his favou-rite place of residence. Here he published (March 29) an act of abdication, expecting the final sentence of the diet, which, on its first session (May 10), solemnly renounced their allegiance to him, and de-clared the heirs of his body for ever incapable of succeeding to the Swedish throne. Thereupon a for-mal act was prepared. The dethroned king occupied himself at Gripsholm, principally in studying the Revelation of John. He wished to leave Sweden. The estates, on the proposition of the new king, Charles XIII., settled on him an annual pension for himself and family. His private property, as well as that of his wife and son, was also left him. He did not oc-cupy the place of residence assigned to him in the island of Wisings-Oe, but (Dec. 6, 1809) went from Gripsholm to Germany and Switzerland, where he lived under the title of *count of Gottorp*. He has since separated from his wife and children; and his marriage was, on the 17th of February, 1812, at his own request, annulled. The same year, he also de-sired to be admitted among the Moravian brothers at Herrnhut. Since his separation from his wife, he has been accustomed to wear the mystical religious badge of the order of St John. He afterwards made several tours without any definite object, visited St Petersburg, and, in 1811, London. In Dec., 1814, he was making preparations at Bale for a visit to Jerusalem. In 1815, he presented a declaration to the congress of Vienna, asserting the claims of his son to the Swedish throne. He finally assumed the name of *Gustavson*, and visited Leipsic, in 1827, as a private individual. His son, Gustavus, who was born in 1799, studied in Lausanne and Edinburgh, was pre-sent at Vienna and Verona at the time of the con-gress in 1822, and in 1825 entered the Austrian ser-vice, as lieutenant-colonel of the imperial Hulans. He lives at Vienna, and enjoys the title of *royal high-ness*. He has three sisters, carefully educated by their excellent mother (who died in 1826). The eldest was married, in 1819, to Leopold of Hoch-berg, margrave of Baden.

GUSTO; an Italian word signifying *taste*. It often occurs in music; as *con gusto*, with taste.

GUT, in the West India islands, particularly in the island of St Christopher's, or St Kitt's, is a term for the opening of a river or brook, such river or brook also being often so called.

GUTS-MUTHS, JOHN CHRISTIAN FREDERIC, born in Quedlinburg, 1760, was the first German author who wrote extensively on the various exercises in-cluded in the modern gymnastics. Guts-Muths was, for a long time, a teacher in the institution of Salz-mann, at Schnepfenthal. He wrote several works on gymnastics. His latest is the *Turnbuch* (Frankfort on the Maine, 1818), in which he adopted many ex-ercises, as also the name of the book, from that of *Jahn* (q. v.), as the latter had also adopted many things from him. He wrote, too, a Geography (2 vols., 1810—1813), and edited a *Bibliothek der pä-dagogischen Literatur*—Library of Works on Educa-tion (1800—1820, 55 vols).

GUTTA SERENA. See *Cataract*, and *Eye*.

GUTTENBERG, more properly GUTENBERG, JOHN, or HENNE GANSEFLEISH von Sorgenloch (Sul-

geloch), usually called the inventor of printing, was born at Ments, about 1400. The family of Gutenberg called itself noble. In 1424, Gutenberg was living in Strasburg, and, in 1436, entered into a contract with one Andrew Dryzehn (Dritzehn) and others, binding himself to teach them all his secret and wonderful arts, and to employ them for their common advantage. The death of Dryzehn, which happened soon after, frustrated the undertaking of the company, who had probably intended to commence the art of printing; especially as George Dryzehn, a brother of the deceased, engaged in a lawsuit with Gutenberg, which turned out to the disadvantage of the latter. When and where the first attempts were made at printing cannot be fully decided, as Gutenberg never attached either name or date to the works he printed. This, however, is certain, that, about 1438, Gutenberg made use of moveable types of wood. In 1443, he returned from Strasburg, where he had hitherto lived, to Ments, and, in 1450, formed a copartnership with John Faust, or Fust, a rich goldsmith of this city (who must not be confounded with the famous magician Faust), who furnished money to establish a press, in which the Latin Bible was first printed. But, after some years, this connexion was dissolved. Faust had made large advances, which Gutenberg ought to have repaid; and, as he either could not or would not do it, the subject was carried before the tribunals. The result was, that Faust retained the press, which he improved, and continued to use in company with Peter Schoeffer of Gernsheim. By the patronage of a counsellor of Ments, Conrad Hummer, Gutenberg was again enabled to establish a press the following year, when he probably printed *Hermanni de Saldis Speculum Sacerdotum* (in quarto), without the date or printer's name. Here, likewise, as some maintain, appeared four editions of the Donat (Latin grammar of Donatus), which others, however, ascribe to the office of Faust and Schoeffer. In 1457, the Psalter was printed with a typographical elegance which sufficiently proves the rapid advances of the new art, and the diligence with which it was cultivated. Gutenberg's printing-office remained in Ments till 1465. About this time, he was ennobled by Adolphus of Nassau, and died Feb. 24, 1468. Little is known of his life and works, or of the early progress of the art of printing, and the introduction of moveable types. Valuable statements and suggestions on this subject are to be found in Fischer's *Versuch zur erklärung alter typographischen Merkwürdigkeiten* (Hamburg, 1740); Oberlin's *Beiträge zur Geschichte Gutenberg* (Strasburg, 1801); and in the works of Denis, Lichtenberger, Panzer, and many other writers.

GUTTURAL (from the Latin *guttur*, the throat) signifies, in grammar, a sound produced chiefly by the back parts of the cavity of the mouth. The palatals *g* and *k* are nearly related to them. The Greek χ, the German *ch* after *a*, and *ch* after *i*, and the Dutch *g*, are gutturals. The Arabian language is full of gutturals, and many of them are unknown in most other languages. (See the article *H*, for the relation between *g* and the guttural sound of the German *ch* or the Greek χ.) The modern Greek gives to χ a very strong guttural sound, like that of the German *ch* after *e* and after *a*. The Irish *r* is a true guttural. The French nasal sound, as in *long*, is a true guttural; the English sound in *long* not so much, as it is less nasal. The Spanish *n* has been called, by some, a *nasal-guttural*. The roughness of the dialect of Switzerland is owing to its strong and numerous gutturals; for it not only pronounces all the gutturals of the German language very forcibly, but also gives to *g*, in many cases, the harsh guttural sound of *ch* after *a*.

GUY; a rope used to keep steady any weighty body from bearing or falling against the ship's side, while it is hoisting or lowering, particularly when the ship is shaken by a tempestuous sea.

Guy is also the name of a tackle, used to confine a boom forward when a vessel is going large, and to prevent the sail from shifting by any accidental change of the wind or course, which would endanger the springing of the boom, or perhaps the upsetting of the vessel.

Guy is likewise a large slack rope, extending from the head of the main-mast to the head of the fore-mast, and having two or three large blocks fastened to it. It is used to sustain a tackle to load or unload a ship with, and is accordingly removed as soon as that operation is finished.

GUY, Thomas, the founder of Guy's hospital, was the son of a lighterman in Southwark, and born in 1644. He was brought up a bookseller. He dealt largely in the importation of Bibles from Holland, and afterwards contracted with Oxford for those printed at that university; but his principal gain arose from the disreputable purchase of seamen's prize tickets, in queen Anne's war, and from his dealings in South sea stock, in 1720. By these speculations and practices, aided by the most penurious habits, he amassed a fortune of nearly half a million sterling, of which he spent about £200,000 in the building and endowing his hospital in Southwark. He also erected almshouses at Tamworth, and benefited Christ's hospital and various other charities, leaving £80,000 to be divided among those who could prove any degree of relationship to him. He died in December, 1724, in his 81st year, after having dedicated more to charitable purposes than any private man in English record.

GUY DE CHAULIAC (*Guido de Cauliaco*), a native of Chauliac, on the frontier of Auvergne, France, lived in the middle of the fourteenth century, and was the physician of three popes. He is to be considered as the reformer of surgery in his time. His *Chirurgia magna* contains most of the opinions of his predecessors. It was long considered as a classical text book; was finished at Avignon in 1363; and was printed at Bergamo (1498, folio). An older edition is mentioned (Venice, 1470, folio). It has been often reprinted, commented on, and translated into modern languages.

GUY FAWKES. See *Gunpowder Plot*.

GUY'S HOSPITAL, in the borough of London. (See *Guy*.) The hospital was established for the sick persons, besides twenty incurable lunatics. It contains thirteen wards, and upwards of 400 beds. There are three physicians, three surgeons, and an apothecary. The average number of patients admitted annually is about 2250, besides whom, there are 20,000 out-patients. This hospital has a collection of anatomical preparations, and a theatre for the delivery of chemical, medical, and anatomical lectures. On one evening in the week, medical subjects are debated.

GUYON, Madame. See *Quietism*.

GUYS, Pierre Augustin; born at Marseilles 1721; a merchant in Constantinople, and afterwards in Smyrna; known for his travels and his accounts of them. He subsequently became a member of the institute, and of the academy of Arcadians in Rome. His first work appeared in 1744, and contains an account of his journey from Constantinople to Sophia, the capital of Bulgaria, in a series of letters. In 1748, he published, in the form of letters, an account of his journey from Marseilles to Smyrna, and thence to Constantinople. He was mostly indebted for his literary fame, to his *Voyage littéraire de la Grèce*, a work in which he compares and contrasts, with much acuteness and truth, the condition of ancient and

dern Greece, and their political and civil constiion. Guys also made himself known as a poet, his Seasons, on the occasion of his journey to ples, which was received with much applause. the publication of his *Voyage de la Grèce*, Vole addressed some very flattering verses to him, the Greeks conferred on him the privileges of Athenian citizen. Guys died at Zante, in 1799, he age of seventy-nine, as he was collecting maals for the third edition of his travels in Greece. son, Pierre Alphonse, was appointed secretary he French embassy to Constantinople, to Vienna, to Lisbon; afterwards consul in Sardinia; then Tripoli in Africa; and, finally, at Tripoli in Syria, ere he died in 1812. He published letters on the rks, in which he treats of the rise and decay of their rer. He was also the author of the comedy *La ion de Molière*, in four acts, altered from Goldoni.

GWYNN, Eleanor, better known by the name of ll, the celebrated mistress of king Charles II., at first an orange girl of the meanest descripn, in the play-house. In the first part of her life, gained her bread by singing from tavern to ern, and gradually advanced to the rank of a poar actress at the theatre royal. She is represented handsome, but low of stature. She was mistress, cessively, to Hart, Lacy, and Buckhurst, before became the favourite of the king. It is said t, in her elevation, she showed her gratitude to den, who had patronised her in her poverty; , unlike the other mistresses, she was faithful to royal lover. From her are sprung the dukes of Alban's. She died in 1687.

GYGES; a favourite of the Lydian king Candles, who, to convince him of the beauty of his en, showed her to him naked. The queen was ncensed at this shameful act, that she ordered ges either to murder the king, ascend his vacant one, and become her husband, or to atone for his iosity by death. After having laboured in vain hake the resolution of the queen, he chose the ner part of the alternative, murdered Candaules, was established on the throne in consequence of response of the Delphian oracle. This is the y as related by Herodotus. There is a fable of agic ring, which Gyges found in a cavern when a sman, and which had the power of rendering its essor invisible, whenever he turned the stone inds. By the aid of this ring, he enjoyed the races of the queen and assassinated the king. ave the ring of Gyges was afterwards used proially, sometimes of fickle, sometimes of wicked artful, and sometimes of prosperous people, who in all they want.

GYMNASIUM; the name given by the Spartans e public building where the young men, naked ce the name, from γυμνος, naked), exercised selves in leaping, running, throwing the discus spear, wrestling, and pugilism, or in the *pen*on (*quinquertium*) so called. This Spartan inion was imitated in most of the cities of Greece, in Rome under the Cæsars. Its objects, how- did not remain confined merely to corporeal ises, but were extended also to the exercise of ind; for here philosophers, rhetoricians, and ers of other branches of knowledge, delivered lectures. In Athens, there were five gymnasia, among them the Academy, the Lyceum, and ynosarge. In the first, Plato taught; in the d, Aristotle; and in the third, Antisthenes. were, at first, only open level places, surrounded by a wall, and partitioned off for the different s. Rows of planetrees were planted for the se of shade, which were afterwards changed colonnades with numerous divisions. The gymnasia, at last, were composed of a number of connected buildings, spacious enough to admit many thousands. Vitruvius has given an exact description of the arrangement of them in his work on architecture (5, 11.). Some gymnasia contained more, and some fewer apartments; and all were furnished with a multitude of decorations. Here were found the statues and altars of Mercury and Hercules, to whom the gymnasia were dedicated; sometimes, also, the statue of Theseus, the inventor of the art of wrestling; statues of heroes and celebrated men; paintings and bass-reliefs, representing subjects connected with religion and history. The Hermes figures (see *Hermes*) were among the most common ornaments of gymnasia. Here was assembled every thing that could improve the youth in the arts of peace and of war; every thing that could elevate and raise their minds; and, while these institutions flourished, the arts and sciences also flourished, and the state prospered. The governor of a gymnasium was called the *gymnasiarch*. Sometimes such a gymnasium was styled *palæstra*, which was, properly, only the part where the *athletæ*, destined for the public exhibitions, exercised themselves. Ignara is of opinion, that a distinction was made between the gymnasium and palæstra, at the time when the philosophers and others commenced their lectures here; that the latter was designed to promote physical, and the former mental education simply. In the latter sense, the high schools in Germany, where young men are fitted for the universities, have been called *gymnasia*, in modern times. In Rome, during the republic, there were no buildings which could be compared with the Greek gymnasia. Under the Cæsars, the public baths bore some resemblance to them; and the gymnasia may be said to have expired with the thermæ. See *Gymnastics*.

Gymnasia, German. From the time of the revival of learning, when almost all knowledge was derived through the Latin and Greek,—and certainly no existing literature could be compared to that contained in these two languages,—the study of them obtained such possession of the schools, that it has, ever since, influenced the studies of youth in Europe, and particularly in Germany, to such a degree, that it is very difficult to restore the proper balance in schools of the higher kind. The *gymnasia*, the name of these schools in Germany (derived from the ancient term), taught Latin and Greek, and the branches connected with antiquity, almost to the exclusion of other sciences. But, in modern times, when the natural sciences have made such distinguished progress, and rich stores have accumulated in many modern literatures, and the importance of mathematics has been increased, the faults of this arrangement have become obvious, and some authorities, particularly in Prussia, have already established institutions, in which history, mathematics, natural philosophy, and modern languages may be learned without Latin. In the gymnasia themselves, more time is allotted to these branches than formerly. The gymnasia of Prussia probably carry the scholar farther than any institutions of a similar kind elsewhere. No limits are fixed for the stay of the scholar in each class; every year an examination for the next class takes place, to which every scholar is admitted. Classes are generally divided into two sections, and a scholar cannot be promoted from the lower into the higher without an examination. The last examination, to show whether the pupils are fit to enter the university, is very severe: for three days they have to write exercises, on questions proposed to them, in history, the Latin and Greek languages, mathematics, besides themes in German, and in at least one foreign modern language, alone, shut up in a room, without books;

or, if several are together, they remain under the eye of a professor, so that they cannot talk to each other. The verbal examination generally lasts one day, in presence of commissioners appointed by government. The compositions of the scholars are sent to the minister of instruction and ecclesiastical affairs.—According to the result of the examination, the scholars receive testimonials, marked No. I., II., or III. The first is difficult to gain, and indicates that the pupil has appeared peculiarly well. If private schools or (as is the case in several cities) orphan asylums wish to send scholars to the university, they must apply to government for commissioners to attend their examination. Persons who have fitted themselves for the university, without attending a gymnasium, or any school, can be examined by a committee appointed by the government, which sits every half year. In order to obtain No. I, the pupil must write Latin and Greek without grammatical faults, and in a pretty good style; be able to translate and explain one of the most difficult classic authors (in some gymnasia, Pindar is even taken for this purpose); be well acquainted with the branches of the lower pure mathematics, viz. all below the integral and differential calculus, and prove this by the solution of problems; have a knowledge of general history, and the most important periods; know, besides the German, one or more modern languages, so that he can write in them pretty correctly (themes are generally taken, by which the scholar shows his logical powers, and the soundness of his ideas). If he is to study theology, he is also examined in Hebrew. If he is deficient in either of these branches, he can only obtain No. II. If he is deficient in all, he receives No. III., which indicates that he is not fit for the university.

GYMNASTICS (from γυμνασικος, pertaining to exercise), if we understand by this word all bodily exercises, may be most conveniently divided into—1. military exercises; 2. exercises systematically adapted to develope the physical powers, and preserve them in perfection, which constitutes the *art of gymnastics*, properly so called; 3. exercises for the sick, a most important branch, which has been very little attended to.

The ancients divided their gymnastics into *gymnastica militaria*, *gymnastica medica*, (including under this head our second and third divisions), and *gymnastica athletica*, or, as Galen calls them, *vitiosa*, which were practised by professional athletes at the gymnastic games, and were in bad repute with reflecting men, even in those times, on account of their injurious effects on the health and morals. The class of gymnastics which we have enumerated under the second head, have their origin in the exercises of war and the chase. The preparation of youth for those occupations leads to the introduction of gymnastics; and the chase itself has been considered by many nations as a preparation for war; the Spartans and American Indians are instances. The ancients do not inform us precisely of the origin of gymnastics, considered as a branch of education. We first find them in a systematic form among the Greeks. The first gymnasium is said to have been established in Sparta. In Athens, always disposed to mingle the element of the beautiful in whatever she undertook, gymnastics were refined from the rude military characters, which they bore among the Spartans, into an art; and the gymnasia became temples of the graces. (See *Gymnasium*.) Vitruvius (lib. v.) gives a description of a gymnasium. In each, there was a place called *palæstra*, in which wrestling, boxing, running, leaping, throwing the discus, and other exercises of this kind were taught.

Gymnastics were afterwards divided into two principal branches—the palæstric, taking its name from the *palæstra*, and the orchestric. The former em braced the whole class of athletic exercises; th latter, dancing and the art of gesticulation. It is n known with accuracy, what particular exercises we usually practised in the gymnasia. The enthusias for athletic sports among the Greeks, their love the beautiful, which was gratified in the gymnasia the sight of the finest human forms in the prime youth, and by the halls and colonnades adorned wi statues and pictures, and occupied by teachers wisdom and philosophy, rendered these places th favourite resorts of the old and young. Gymnasti even formed an essential part of the celebration all the great festivals. After a time, however, th character of the competitors at the Olympian, Isth mian, Nemæan, and other great games of Greec degenerated, as they became more and more a sep rate class, exercising, at least in many cases, buildings exclusively devoted to them. Euripi calls them useless and injurious members of the sta It is not precisely known to what extent their exe cises were practised in the gymnasia. The Greek as well as the Romans, set a very high value on the art of swimming. In Sparta, even the you women swam in the Eurotas; and a common phra of contempt, μητε νειν μητε γραμματα επισταται (he can neither swim nor write), is well known. It is well worth while to read the observations of Mercurialis on this subject, in lib. iii, cap. 12 of his valuable *Artis gymnasticæ apud Antiquos celeberrimæ Libri sex* (Venice, 1569). Running was also much esteemed, and the Olympiads were, for a long time, named from the victors in the race. Riding on horseback was deemed a liberal exercise. Dancing, by which we are not to understand the modern dancing of the two sexes intermingled, but the art of graceful motion, including oratorical gesture, together with certain formal dances performed at festivals, was likewise indispensable to an accomplished man. (See Lucian, περι ορχησεως.) Wrestling was also much valued. There are not many materials remaining, to enable us to judge of the exercises practised by the Grecian women in later and corrupt times, they took part in the public games with men. With the decline of Greece, the gymnastic art naturally degenerated, and became gradually reduced to the exercises of professional athletæ, which survived for a long time the ruin of the land of their birth.

The Olympic games continued to be celebrated several centuries after Christ. Some late travellers have thought that they could find traces of the ancient games remaining even in our day. "You have not the Pyrrhic dance as yet," says Byron. The Romans under the emperors, imitated the gymnasia as they did every thing Grecian; but their establishments were little better than places of vicious gratification. The thermæ, or baths, in Italy, took the place of the gymnasia in Greece. Among the Romans, gymnastics never became national, as they may be said to have been among the Greeks. There are some indications, indeed, of early gymnastic games.—I mean the *consualia*; but with this stern, martial, practical nation, gymnastics took altogether a military character. They were considered merely preparatory to the military service, or, what is the same, constituted a part of the exhibitions at festivals, were practised only by a particular class, trained for brutal entertainments, at which large bets were laid among the spectators, as is the custom at the English races (Martial, ix., 68; Suetonius, *Tit.* 8.) Vegetius gives us information concerning the exercises in which the young soldiers, were trained, and they were of a useful character.

When all the acquisitions of the human intellect

ere lost for a season, and some for ever, in the utter ruption of the latter ages of the Roman empire, d the eruption of wandering barbarians, the mnastic art perished. We may date its revival om the commencement of tournaments, the first of hich were held in the ninth and tenth centuries in ance, and may have had their origin in the mili- ry games of the Romans, aided by the martial irit of the descendants of the German conquerors France. They received, however, their full per- ction from the spirit of chivalry. The first tourna- nts were fought with blunt weapons, which were lled *armes gracieuses*. At a later period, sharp apons were introduced, and many fatal encounters ppened before the eyes of the ladies. About the ar 1066, Godefroy de Preuelly collected the rules d customs of tournaments into a code, which was terwards generally adopted. At a later period, e character of these celebrations degenerated so uch, that they were finally prohibited by the pope d the emperor, as the Roman *ludi* had been several mes prohibited by the emperors.

With the superiority which, in the course of me, infantry began to acquire over cavalry, as it ways does with the advance of civilisation and ientific tactics (see Machiavelli's *Treatise on the rt of War*), and the invention of gunpowder, the stitutions of chivalry declined. The heavy steel mts were done away, and the art of skilful fencing gan to be introduced. The first treatises upon this bject appeared in the sixteenth century. The alians were the first teachers, and three different hools, the Italian, French, and German, were soon rmed. We speak here of fencing with the small- ord; but the Germans also practised the art of ncing with a straight broad-sword, perhaps owing their neighbourhood to the Slavonian nations, who l prefer the cut to the thrust. The weapon of the avonians, however, is the crooked sabre. At the me time, vaulting began to be much practised. he Roman *desultores* (Livy, xxiii., 29, and Vege- s), indeed, lead us to suppose that the Romans new something of this art; and it was no doubt also actised by the knights of the middle ages; but e present art of vaulting is modern in its character, d carried to the greatest perfection in France. ghting with a dagger, and even with a knife, was ught as useful in this turbulent age, and much skill as attained in Holland, in defence by the weapon st mentioned, perhaps owing to the fondness of the utch for public houses *(estaminets)*, as this art may called, by way of excellence, the *fencing of the ern*. We even recollect having seen, in an ap- ndix to old works on fencing, the art of defending e's self against attacks, with a pewter beer-pot. restling, as an art, also was revived, and many eatises were written on it in the sixteenth and venteenth centuries, from which we learn that it as often practised in connexion with boxing, form- g the same compound as the ancient *pancratium*. he famous painter, Albert Durer, wrote *Armorum ctandorum Meditatio* (in 1412). It still exists in nuscript at Breslau. Modern horsemanship had origin in Italy. The first riding-school was estab- hed at Naples. In the reign of Henry VIII., it as introduced into England. Running, shooting, rling, leaping, were not taught systematically; t much importance was attached to proficiency in em, in many parts of Europe, on account of the merous popular meetings, like those which still ist in Switzerland. Even at the present day, ung women, with kilted coats, run races at a cer- in festival in Mecklenburg. Swimming, at this riod, was not taught as an art. Where there were nvenient places for bathing, children naturally learned it. Elsewhere little pains were taken to in- struct them in this useful branch of gymnastics; though in many parts of Europe there were races on and in the water.

In the age of wigs, gymnastics declined, and effe- minate pleasures took their place. Riding, fencing, vaulting, and dancing alone remained, and even these were gradually neglected by the people, and con- fined to the nobility, on which account these exercises were sometimes called the *exercises of the nobles*; at least, this was the case on the European continent. In England, where noble families never formed so distinct a caste as in other countries of Europe, those branches of gymnastics which still survived, were more generally practised. The Greeks had, besides the combats with the *cæstus*, a contest of boxing, termed *sphæromachia*, because the combatants had balls in their hands. Boxing, taught with caution, is an invigorating exercise, and the skilful boxer is always furnished with natural arms. The art of cudgel-playing is a useful exercise, as practised in France, where it is different from that which is prac- tised in England.

In the last century, when men broke loose from the yoke of authority, and thinking and thoughtless heads began to speculate deeply or frivolously on the existing order of things, education began to receive its share of attention, and the better sort of teachers saw that gymnastics must soon be introduced among the other branches of instruction. Salzmann, a Ger- man clergyman, was the first instructer of youth, at whose institution in Thuringia bodily exercises were taught, in the latter part of last century. These were principally running, leaping, swimming, climb- bing, balancing. Guts-Muths wrote a very respect- able treatise upon modern gymnastics, which, as the first, deserves much praise. He afterwards wrote a more enlarged work on the same subject. (See *Guts-Muths*). The results of this system of exercise, aided by the healthy situation of Salzmann's school, are deserving of notice. In thirty-two years, 334 scholars, from various nations, were educated at this establishment; and not one scholar died there. Seven or eight families also were connected with the institution; and from these only three children died during the same period, and two of these were under a year old. In some few existing establishments, this example was imitated; but the age was still too effeminate, former manners too prevalent, to allow gymnastics a proper place in education.

The French revolution broke out, and Europe received a warlike character. Germany was con- quered by the French, and the desire to repulse them became general, but no hope of immediate resistance existed. All eyes were naturally turned towards the youth; and while there was a general desire of re- viving in the nation a patriotic spirit, Jahn (q. v.) conceived the idea of establishing gymnasia for two reasons—to prepare the young for a future war against the French, and to bring together in the gymnasia youths of all classes, who might be inspired with a love for their common country. Doctor Jahn established his first *Turnplatz*, the German name for gymnasium, near Berlin, in 1811. But the disasters which the French armies experienced in Russia, led the Germans to a war against France much sooner than the most sanguine had hoped. When the peace of Paris was concluded, the gym- nasia, which had been closed during the time of war, were reopened; and, when the Germans found them- selves disappointed in their expectations of liberal institutions, when the princes broke their solemn pro- mises, the gymnasia were made use of to inspire the youths with an ardour for liberty. Many imprudent steps were taken by the German people, and Jahn

himself was not always wise in his conduct. Much had crept into the gymnasia with which the public was dissatisfied, and when Sand assassinated Kotzebue, and the government, which had already become suspicious of the gymnasia, ordered them to be closed, no opposition was made. We must not omit to mention here, that, some years before, the Prussian government had ordered an investigation into the gymnasia by the government's physicians, whose report was decidedly favourable.

When the persecutions against liberals were renewed, in 1824, with greater violence, Mr Volker, being compelled to seek an asylum in England, established the first gymnasium in London. At the same time, captain Clias, a Swiss, established a gymnasium at Chelsea, in the royal military asylum. He soon after published his work on gymnastics, the only merit of which is its brevity and clearness. Jahn and his pupil Eiselen had published, soon after the peace of Paris, a work on modern gymnastics, which is excellent in many respects, though it is sometimes too minute and pedantic. When the gymnasia were founded in London, *calisthenics*, or exercises for females, were first taught; but though we think that they should never be omitted, yet we consider those exercises which were taught as founded on erroneous principles. A system of healthy and graceful exercises for females may be established; but those which are now generally practised in English boarding-schools are wrong in principle. Gymnasia have since been reopened in some places of Germany, but they are now strictly confined to bodily exercises. In 1825, doctor Beck, a German, and pupil of doctor Jahn, established the first gymnasium in America, in Northampton, Massachusetts. Others have been subsequently established in different parts of the country. Respecting the various exercises themselves, we must refer the reader to a Treatise on Gymnastics taken chiefly from the German of F. L. Jahn (1 vol., 8vo., Northampton, Massachusetts, 1828).

The writer of this article has always observed, that the pupils of a gymnasium after a while lose their interest in the exercises. This was observable even in Germany, where patriotic feelings were mingled with the exercises. The reason of this appears to be, that little or no difference is made in the exercises of different ages, and it is natural that an exercise repeated for years should become wearisome. Gymnastics therefore, when they are taught as a regular branch of education, ought to be divided into two courses. In the first course we would include walking and pedestrian excursions; elementary exercises of various sorts; running, 1. quick, 2. long continued; leaping in height, length and depth; leaping with a pole, in length and height; vaulting; balancing; exercises on the single and parallel bars; climbing; throwing; dragging; pushing; lifting; carrying; wrestling; jumping, 1. with the hoop, 2. with the rope; exercises with the dumbbells; various gymnastic games; skating; dancing; some military exercises; swimming, which we include in the first course, because it can be easily taught to children. Some of these exercises, of course, are not suitable for very young children, and they should be distributed in a regular gradation, which caution and experience will teach. Gymnastics, properly so called, may be begun by a boy from six to eight years old. The second course consists of repetitions of some of the former exercises of vaulting, both on the wooden and the living horse, either standing or running in a circle; boxing, driving, riding on horseback, and fencing with the broad-sword and the small-sword. Fencing with the small-sword appears to us the noblest of gymnastic exercises. No other is so well entitled to the name of an art; no other calls the powers into such active exercise; no other requires such quickness of limb, of mind and of eye, together with so much self-possession; no other developes so completely the whole frame. It is a noble art. Riding, indeed, deserves likewise the name of an art, in which a man may make continual improvement. It cannot, however, be called so pure a gymnastic exercise as fencing, and, in its nature, it is more mechanical. Many excellent horsemen are men of very inactive or limited minds; but all good fencers whom we have known, were men of quick apprehension and lively intellect. This accounts for the circumstance that the artists of the middle ages valued fencing so highly. Almost all the great masters and distinguished poets of those times, were skilful swordsmen, and some of them wrote treatises on the use of their favourite weapon; for instance, Leonardo da Vinci.* Boxing, riding, and the various exercises on the living horse, should not be commenced much before the sixteenth year.

In our plate of Gymnastics we have given an outline of some of the principal exercises. For several of these we are indebted to Captain P. H. Clias's "Elementary Course of Gymnastic Exercises," the fourth edition of which was published at London in 1825, and for others to "A Military Officer's" Abridgment of Guts-Muth's "System of Gymnastics." Fig. 1, 2, 3, and 4, represent the exercises upon a column with pegs by Captain Clias. The column should be a round post about twenty-five feet long, and from fifteen or eighteen inches in diameter, with four rows of wooden pegs, three feet distant from each other, projecting four inches, and being one inch in diameter. Fig. 1, represents the most simple exercise with this column. It consists in climbing to the top in a spiral direction by means of the hands and feet. It habituates the hands to seize with quickness and firmness, and the feet to place themselves with celerity and exactness on narrow places, without requiring the eye to direct them. In ascending, the right foot is placed on the first peg, the left hand grasps the second, with the nails turned under, the right, the third peg of the second line, the nails also under, the right foot on the first peg of the second line, the left hand on the third, and so on to the top of the column. To descend, the contrary movements are made, going backwards. Fig. 2, represents a manner of climbing the column by passing under the right arm. In ascending, the right foot is placed on the first peg, the left hand on the second, the left foot, passing between the right foot and the column, is placed on the first peg of the second line, the heel outward, and the right hand on the second peg of the same line. In this position all the weight of the body is supported by the right hand and the left foot. Then the head passes under the right arm, between the column and the body. In order to descend, in passing under the right arm, the movement is made in a contrary direction, observing that the nails ought to be turned upwards, the moment when seizing the peg to pass under the arm. (See fig. 3.) In this exercise, both in climbing up and down, the foot and the hand which cross always occupy the two pegs which follow on the same line;—that is, the left hand and the right foot, or the contrary. When passing under the left arm, the left hand and right foot begin. The left hand, crossing over the right arm, grasps the second peg of the second line. The left foot, passing between the column and the right leg, is placed on

* Of Tasso it was commonly said, after he had successfully repelled three assailants—

Colla penna e colla spada,
Nissuno vale quanto Tasso.

His father was a distinguished fencer, as was Albert Dürer.

the first peg of the second line, the heel outward; then, after having let go with the right, the head slides under the left arm, the right foot and the right hand take two other pegs, and so on successively. In ascending and descending, when passing under the left arm, the right hand and right foot, as well as the left hand and left foot, should always be on the same line of pegs (See fig. 4.)

Fig. 5 represents raising the knees, by supporting the body in equilibrium upon the hands, without touching the beam with any other part of the body. After having practised this exercise a little, the gymnast may come to stand on the beam, since, to rise up from the first position, he has but to bend the body a little forwards, bring the heel of the right foot before the ankle of the left, and so rise up gently.

Climbing up a board is represented in fig. 6. This board may be about 30 feet long, and two broad. At first, to beginners, it should not be more than thirty-five degrees of declivity, but afterwards you may gradually augment it to fifty, sixty, or more degrees. This exercise, though simple, may be of great use in many circumstances.

Those exercises for augmenting the muscular powers of the body and limbs, as performed on stands by Guts-Muth are represented in figs. 7 and 9.

That shown in fig. 7, is about five feet high, two feet in width, and of any convenient length; the upper surface of the bars *a*, *b*, *c*, and *d*, is rounded so as to be more easily grasped by the hand. The other, in fig. 9, consists of four posts, *a*, *b*, *c*, *d*, of which *b* and *c* are about fifteen feet distant from each other, the one six, and the other seven feet high. The latter support a cross-piece, *e*, *f*, which is six inches deep, its lower side three inches wide, and its upper one about two; altogether it is shaped like the upper part of the rail of an ordinary staircase; *g*, *h*, and *i*, *k*, are two poles made of fir, eight feet long, and from two to two inches and a half thick: made round and smooth, and of different heights, for the convenience of the learners.

Exercise 1. The learner raises himself into the position shown at No. 1, upon the stand *a*, *b*, *c*, *d*, and swings his legs backward and forward, the higher the better, as long as he possibly can; during which motion his feet will nearly describe the semicircle *e*, *f*, *g*.

2. When in the last position, the learner makes a jump, as it were, with his hands forward, and repeats it until he arrives at the end of the stand; whence he commences jumping backward as far as the other extremity. This, and the preceding, are two excellent exercises for strengthening the wrists.

3. The learner, after having raised himself into the position required in Ex. 1, lowers his body so as to bring his head nearly on a level with his elbows, which must be kept exactly over the bars. See No. 2. The most difficult part of the exercise follows; which consists in raising himself again into his former position. This exercise, which he should repeat as often as possible, is perhaps the best of any for strengthening the muscles of the chest, and particularly those which are connected with the shoulders.

4. As many of the learners place themselves in a row under the bar *e*, *f*, fig. 9, as can find convenient room; the tallest are nearest to the end *f*. The others who are not able to share in this exercise, help their companions up, so that they may seize the bar with both hands, and then leave them in that position. Each now supports his own weight with arms at full length, as long as he possibly can; which forms the first part of this exercise. The second is more difficult: it consists in keeping the elbows so much bent, that one shoulder remains close under the bar. Since it is not in the power of every beginner to raise himself to this position, the teacher must assist him until the required height is attained; it is sufficient for him to remain there but a short time at first. The exercise is rendered more lively by letting the learners try who can hang in this manner longest; but the teacher must prevent any one from overdoing it.

5. The hands are placed upon the bar, over opposite sides, as seen in No. 1. At another time they may be placed both on the same side. The learner now draws himself so much upward, as to be able to see over the bar, keeping the legs and feet closed and stretched out. He then lowers himself to the full length of his arms, and again raises his body. This exercise is very trying if often repeated. Most persons will go through it three, six, or perhaps nine times, but few reach the eighteenth or twenty-fourth time. It must not be carried too far, for the muscles are to be strengthened, not relaxed.

These two exercises should be frequently repeated, since they wonderfully increase the muscular powers, and greatly facilitate the succeeding exercises.

6. The learner hangs with his hands upon the bar, as before, and then raises and lowers the legs alternately. See No. 2. The hands are fixed on both sides, and at a little distance from each other; the elbows are very much bent; the one shoulder is immediately under the bar, and the upper parts of the arms lie close to the body. The head now sinks backward, and at the same time the feet are raised so as to touch each other gently over the bar. From this they again sink into the hanging position. Beginners who have not thoroughly practised the two preceding exercises, find this one very difficult: some make a preparatory swing with the feet to assist them; but this is not correct, since the exercise ought to be performed entirely through the muscular force of the arms, back, &c. It can be repeated six, nine, twelve, eighteen, twenty-four, and even thirty times. The teacher is again recommended to prevent any one from overdoing the exercise: the pupils should not be impatient, but overcome every difficulty by practice alone.

7. Let the feet, when in the position of No. 2, as required in the preceding exercise, cling close to each other over the bar, and remain as long as possible in this position. The learners try to excel one another in this exercise.

8. Suppose the body to be in the last-mentioned position, *viz.* No. 2. Throw the right arm and the right leg quickly over the bar, so as to hang to it by the elbow and knee joints, as seen in No. 3. Change the position with the same quickness by throwing the left leg and arm over the bar, in order to rest the other side. Finally, the body may be made to hang by the right leg and left arm, and *vice versa*. This exercise, which is performed upon the round bar *g*, *h*, and *i*, *k*, is rendered very pretty, by the position of the body and limbs being continually varied, and is very useful as a preparatory one to climbing.

9. Suppose the body to be again in the position of No. 2. Commence moving the hands one before the other, either towards *e* or *f*, and let the feet follow, either sliding along the bar, or what is much better, alternately changing like the hands, and retaining, in some measure, a similar hold. Continue moving along the bar in this manner, as long as your strength will permit.

10. The body hangs to the bar by the hands, placed as shown at No. 4; these are then moved either forward or backward alternately as long as possible. This exercise is faulty when the arms hang straight and slack; or when the feet, instead of being quite and close together, are violently drawn up and down.

It may be varied by the learner's placing himself in front of the bar, hanging by both hands, and moving the latter alternately sideways.

11. When a person is in the position of No. 3, it is very easy for him to throw the left leg over the bar and across the right one; then to let go the arms entirely, and hang by the knee joints only. This exercise is perfectly safe, strengthens the knee joints, and is often useful in climbing.

12. The body being in the position of No. 2, the learner endeavours to sit upon the bar. The first attempts frequently fail, since some strength and agility are required. The easiest way of doing it is thus: suppose you wish, when in the position of No. 2, to get up on your right side of the bar; take a fast hold by the right knee joint, grasp firmly with the right hand, and bring the left arm over the bar so that the latter may be exactly under the armpit. From this position, the required or riding one is obtained with very little trouble.

13. When a person is in the riding position upon the bar, it is very easy for him to turn towards the front of the bar *e, f*; *viz.* by supporting himself upon one thigh, while the other leg hangs down. He then moves along the bar sideways, by raising his body with his hands, which are placed on the bar on each side of him. This exercise is very useful in practising a person to proceed a great way along a high beam.

14. The learner is in front of the bar, with his hands resting upon it, as in No. 5; he then removes his hands either to the right or left, and supports himself, in this manner, as far as he can along the bar.

15. Suppose a person to be supporting himself by the hands upon the bar, as before, No. 5; he then throws his head down forward, and dives, as it were; the middle of the body rests momentarily upon the bar, the feet swing upward, the whole person turns completely round, and the feet come to the ground. This is swinging round the bar forward; it is more difficult, but prettier, backward. Supported by the hands as before, the learner swings his feet once or twice backward and forward; when in the last swing he throws them quickly forward underneath the bar, forcing them upward on the opposite side, and then passes them over. See No. 6. In this he also rests momentarily with the middle of the body upon the bar, and then returns to his first position. This swing round the bar backward is not easy at first; it requires a good deal of agility and exertion of the elastic force. The exercise should always be performed upon a smooth round bar, as *g, h*, or *i, k*. Exercises of this kind admit of numerous variations, and boys soon find them out; but the teacher should always stand by to observe them, and to give his assistance to any one who may require it.

Climbing and Mounting. These arts are of the utmost importance to the military, maritime, and civil inhabitants of Britain. The soldier who has been well taught in the gymnastic school, has an immense advantage over both his comrade and his enemy, in case of an attack upon a place difficult of access, such as the storming of a town, or the carrying of a commanding height. The sailor's life is spent in climbing, and he would always feel the benefit of early instruction in these practices. The traveller, afraid of danger or fatigue, passes rocks or mountains commanding the most beautiful prospects, which, if well instructed, he might ascend with ease and pleasure, and the inhabitant of the city would sleep more secure from the apprehension of fire, if he felt confident in being able, at the shortest notice, to descend the loftiest and most awkward elevations. Such security may be promised to him who has mastered the gymnastic art, as practised in various parts of Germany, and as now taught in Britain.

The Climbing-stand. This is represented in the Plate, fig. 8. It consists of two strong posts *a* and *b* firmly fixed in the ground; twenty feet high, and about thirty feet distant from each other. They support the beam *c d*, which is strongly fastened to them. The mast *e*, is fixed upright and very firmly in the ground, and in such a manner as to pass close by the beam *c d*, to which it may be attached by means of an iron band; though this is not necessary if it be supported by the slant post *g* on the other side of the stand. To the beam *c d*, are attached the implements for climbing, viz. two poles *f* and *g*, three ropes *l*, *m*, and *n*, a rope ladder *i*, and a mast *k*. The two standing-places *o* and *p* are intended for the exercises in mounting. A ladder leads to the lower one, and is made fast to the mast *e*; another leads from the lower to the upper one. The firm construction of these standing places must be executed under the eye of the teacher.

1. Beginners ascend and descend the ladder which is fixed to the climbing-stand, in the customary way, until they acquire expertness and courage.

2. They descend with the back turned towards the ladder.

3. They mount and descend in the usual way, but only with one hand; and, after a little practice, carry something in the other. See No. 1.

4. The learner goes up and down without using his hands. See No. 2. The ascent is extremely easy, after which he uses his hands in turning round so as to have his back towards the ladder when descending. In this part of the exercise, the teacher must always be ready to assist him.

5. Two learners meet upon the ladder, and wish to pass each other. They either both remain on the front part of the ladder, and give way to each other as much as possible, or, if one of them is sufficiently expert in the two following exercises, he swings himself round to the back part, in order to let his companion pass.

6. The exercises now commence on the back part of the ladder. The learner easily ascends from step to step by advancing his hands and feet, at the same time, higher and higher.

7. The learner mounts along the front part of the ladder as usual; then swings himself round to the back part, along which he descends.

8. The learner mounts and descends the ladder upon its back part, without making use of his feet. See No. 3. Although this exercise ought not, strictly speaking, to be introduced here, yet as we are busy with the ladder, there will be no harm in mentioning it now. It may be divided into two parts. The first consists in taking fast hold of the most convenient rundle with both hands, and raising the body forcibly upward. At this moment, one hand seizes the next highest rundle, and immediately afterwards the other hand does the same. Both hands again raise the body as before, &c. In the second part of this exercise, the hands seize the rundles singly and alternately; which is much more difficult, and only accomplished by practised learners.

9. *Climbing either the Upright or Slant Pole.* The thickness of the upright pole *f*, is from two to two inches and a half, or more, according to the size of the learners. It must be perfectly smooth, and void of splinters. Its upper end is fastened by an iron ring to the beam *c d*. The slant pole *g* must be at least three inches thick. Neither of them is sunken very fast in the ground, but only sunk a little into it, in order that they may be easily replaced by poles of different sizes. The position of the climber is the same in both the upright and oblique pole, and

hown upon the latter, in No. 4. Nothing must ouch the pole besides the feet, legs, knees, and hands. he climber, while he raises himself with both hands, raws his legs up the pole, as in No. 4, then holds ist by them, and again places his hands higher up. le continues this alternate use of legs and arms un- l he has reached the top. The descent is not at all ifficult; it is not performed similar to the ascent, ut merely by sliding quickly down with the legs, ithout scarcely ever touching the pole with the nds, as shown in No. 5. This exercise is more ifficult on the oblique pole, since the hands are more ffected by the weight of the body. The learners ould be made very perfect in this exercise, for very one ought at least to be sufficiently expert in ase of fire to slide himself down along a smooth ole placed against the window of a second or third tory of a house.

10. *Climbing the Mast* is more difficult than the ist exercise, for even when made of a moderate ize, it cannot be spanned round by the hands. It is xed quite firm in the ground; is from six to eight nches thick at the bottom, and thirty feet high. The earners must not be allowed to climb the mast until hey are very expert at climbing the poles mentioned n the last exercise, and are able to get from that, pon the beam *c d*. All climbing succeeds best in ot weather, but more particularly that of the mast. he position of the legs is the same as with the pole: oots are the best covering for the feet. Since the ast is too thick to be grasped by the hands, the limber must lay fast hold of his left arm with his ight hand, and *vice versâ*. Learners climb with nuch more ease and security, with naked arms, for he skin does not slip near so easily as the clothes. climber up the mast adheres to it with his whole ody, as in No. 6, until he reaches the thinner part f it, as appears from No. 7.

11. *Climbing the Rope-ladder.* (See *i*, Fig. 8.) The rope-ladder should have three or four wooden undles to spread it out, and ought to be made so as ot to twist round and entangle when used; if it has his fault, it is unserviceable.

It is much more difficult to mount the rope-ladder han the pole, the former hanging quite loose, and ot at all fastened at the bottom. The muscles of he arms and hands are very much affected; for the atter must, when the learner is not sufficiently ac- uainted with this exercise, almost entirely support he body, which continually inclines backward. The anner of proceeding in this exercise is easy, for it s similar to ascending a wooden ladder; but as the ope-ladder hangs perpendicularly, and is very flexi- le, the steps upon which the feet rest, are generally ushed forward by the unpractised, and the upper part f the body sinks out of the perpendicular position nto a very oblique one; whereby the whole weight of he body becomes supported by the hands, and the xercise is rendered so difficult that the learner cannot scend very high. To obviate this, he must always ave a fast hold of the two main ropes, as shown in o. 8, and keep the body, as much as possible, tretched out upon the ladder and upright. If the adder is sufficiently strong, the teacher allows two or hree of his pupils to get up and down at the same time; y which means they learn to pass each other. One angs by a main rope until the other has passed him.

12. *Climbing either the Oblique or Level Rope.* Let rope be fastened from one post to another, or from he beam *c d*, to an adjoining post *k*, and in an oblique irection. Another might also be placed in a level irection, having one end fastened at *k*, and the other o the post *b*. In either case the learner fixes himself o the rope as in Fig. 8, No. 9, and advances along he rope. In this manner, a number of soldiers might cross a small river, with their arms and knap- sacks, when other means failed.

13. *Climbing the Upright rope.* This exercise is shown in Fig. 8, upon two ropes *l* and *m*, because the securing of the rope by the feet may be done in two different ways. It is very easy to those who are already expert at climbing the upright pole. The only difficulty lies in seising the rope with the feet so as to obtain a firm support.

The first method is shown in No. 10, upon the rope *l*. Knees and thighs have nothing to do here; only the feet are employed. If the learner sit upon a chair, and cross his feet in the usual way, he will im- mediately perceive their proper position. The rope passes between them, and is held fast by pressing them moderately together, while the hands alternately grasp higher up the rope. Hereupon the climber, hanging by his hands, also draws his feet higher up, fixes them again to the rope, and proceeds as before.

The second method, peculiar to sailors, is shown at No. 11, on the rope *m*. The rope passes down from the hands of the climber, along one, generally the right, thigh, not far above the knee; winds round the inner side of this thigh, along the knee hollow and the calf, and then across the instep of the right foot, whence it hangs loose. If the climber only treads moderately upon that part of the rope where it crosses the other foot, he will, by means of the varied pressure, obtain a firm support. The exercise depends almost entirely upon holding the right leg and foot so that the rope may retain its proper wind- ing, after being quitted by the left foot, when the hands have been raised for the purpose of drawing the body higher. This is easily acquired after a few trials. In descending, the hands must be lowered alternately, as they are raised in ascending, for if the hands slide down quickly, they will be injured.

14. *Resting upon the Upright Rope.* This exercise not only excites a lengthened power of the muscles, but also tends to promote expertness in dangerous situations. It is represented in Fig. 8, at No. 12, upon the rope *n*; which must be much longer than what the height requires. The climber mounts to a moderate height, and then halts; swings the right foot three or four times round the rope, so that this winds round the leg; he then entwines it, by means of the left foot, once or twice round the right one, which he bends so as to point the toes upwards, and now treads the left foot firmly upon this last winding. The pressure which thus arises between the rope and the feet, opposes the whole weight of the body. In this position, he can rest a long time: but suppose he wishes to be still more at his ease; with this inten- tion, he lowers his hands a little along the rope, as shewn in Fig. 12, then holds fast with the right hand, stoops, and grasps with the left, that part of the rope which hangs below the feet. He raises himself again, and entwines this part a few times round his shoulders, hips, and the rope itself, until he is firmly entangled.

15. Fig. 10 represents two pulling against each other with a rope, and comes under that division of gymnastics called wrestling.

Respecting the manner in which gymnasia should be established and carried on, to afford the greatest advantage, we refer the reader to an article in No. V. of the American Quarterly Review, where they are given at some length. As to *calisthenics*, or exercises for the female sex, they should be founded chiefly on balancing, which may exercise the frame in a great variety of ways, affording the means of graceful motion, and being sufficiently strengthening for females. Those exercises which enlarge the hand, and make the muscles of the arm rigid, are not suitable for them. The chest may be developed in many ways without exercising the arms too much;

an objection to which the exercises with the dumb-bells are liable.

GYMNOSOPHISTS, or BRACHMANS; the name given by the Greeks to the Indian philosophers, because, according to tradition, they went naked. They were divided into two sects—Brahmans (Brachmans, Bramins), and Samans (Sarmans, Garmans.) Of their philosophical systems we know only that they made philosophy to consist in constant meditation and the severest ascetic habits, by which they sought to overcome sensuality, and to unite themselves with the Deity. They often burned themselves alive to become pure the sooner, as Calanus did in the presence of Alexander, and Xarinarus at Athens, when Augustus was there. The little acquaintance of the ancients with the Indies gave rise to many wonderful stories respecting them. This name is sometimes given to the sages of Ethiopia.

GYNÆCEUM (*γυναικεῖον, γυναικωνῖτις*). The Greeks did not live on a footing of friendly intimacy with their wives, like the moderns, but preserved a certain distance, handed down from the earliest ages, when women were regarded as the slaves and the property of their husbands. Hence the former inhabited a different part of the house, termed *gynæceum*, or the females' apartment, the most remote interior room in the building, situated behind the court. Under the Roman emperors, there was a particular establishment of *gynæcea*, being a kind of manufactories, chiefly under the management of women, for the making of clothes and furniture for the emperor's household. In imitation of these, many modern manufactories, particularly those of silk, where a number of females are associated, are called *gynæcea*.

GYNÆCOCRACY; a form of government in which females are eligible to the supreme command.

GYPSIES (from *Egyptians*, the name by which they were called in the English statutes); a wandering nation, whose Asiatic form, language, and customs differ entirely from those of European nations. The German name *Zigeuner* has been considered, by some, of German origin, and derived from *Zieh-Gauner* (wandering rogues); yet this seems erroneous, for even when they first appeared in Hungary, in the beginning of the fifteenth century, they were called *Zigani* and *Zingani*. The Italians, Walachians, and even the Turks, called them *Zingari, Tschingani*, and *Zigani*. This name is not derived from the *Sigynnæ*, who, according to Herodotus, inhabited the country extending from the Pontus to the Adriatic sea; but it appears most probable that it is originally Indian; for at the mouth of the Indus, there is still a similar people, the Tchingani, whom lieutenant Pottinger lately met with in Beluchistan, on the Persian frontiers, and describes as resembling the gypsies in their peculiar customs. The Dutch call the gypsies *Heiden* (heathen). The Swedes and Danes call them *Tartars*; the French, *Bohemians*. The Spaniards call them *Gitanos*, which designates their crafty character. They call themselves *Pharaön* or *Sinte* (which corresponds to *Sinde*, the Hindoo name of the inhabitants of Hindostan). This people is spread over all Europe, and it is probable there are 700,000 scattered through the different European countries. The greater part, however, appear to lead their strolling life in the south of Spain. In England, there are above 18,000. Sir Walter Scott has given an excellent description of them in Guy Mannering. It is believed in England, that they are of Indian origin, and that they belonged to the race of the Sindes, an Indian caste, which was dispersed, in 1400, by the expeditions of Timour. Their language is the same throughout Europe, with but little variation, and even now corresponds with the dialect of Hindostan. It has been proposed, in England, to establish schools for them, and to convert them by means of missionaries. In Germany and France, there are but few; but they are numerous in Hungary, Transylvania and Moldavia, where their number amounts to about 200,000. They are still more numerous in Bessarabia, the Crimea, near Constantinople, and in the whole of Turkey.

Gypsies are remarkable for the yellow brown, or rather olive colour, of their skin; the jet black of their hair and eyes; the extreme whiteness of their teeth, on account of which many of the gypsy girls, particularly those of Spain, are considered beauties; and for the symmetry of their limbs, which distinguishes even the men, whose general appearance, however, is repulsive and shy. The gypsies have much elasticity and quickness; they are seldom of a tall or powerful frame; their physiognomy denotes carelessness and levity. They rarely settle permanently any where. Wherever the climate is mild enough, they are found in forests and deserts in companies. They seldom have tents, but seek shelter from the cold of winter in grottoes and caves, or they build huts sunk some feet in the earth, and covered with sods laid on poles. In Spain, and even in Hungary, and Transylvania, there are, however, some who follow a trade. They are inn-keepers, horse-doctors, and dealers in horses; they are smiths, mend old pans and kettles, and make iron utensils, nails, and the like. Some work in wood, making spoons, spindles, troughs, or they assist the farmer in the fields. Their talent for music has been remarked, but it is confined to instrumental music, which they chiefly practise by the ear. They play on the violin, Jews-harp, the bugle, flute, and hautboy. Their music for dancing is lively and expressive; there are no better musicians for the Hungarian and Polish national dances. Their lively motions are remarkable in their own peculiar dances, and they have great talent for mimicry. The gypsies who formerly traversed Germany supported themselves by tricks, the women telling fortunes with cards; the men dancing on the rope, and performing similar feats. The gypsy women, in their younger years, particularly in Spain, are dancers. As soon as they grow older, they invariably practise fortune-telling and chiromancy. This is their chief occupation in all parts of Europe. The children go perfectly naked until their tenth year. The men wear a shirt and trowsers; the women, petticoats and aprons, red or light blue. In England, they have red cloaks with hoods, and generally, a handkerchief tied over the head. They are fond of rings and ornaments. Those gypsies who lead a settled life are very fond of dress. Their house utensils consist of a pan, dish, kettle, and a silver mug; their domestic animals are horses and pigs. In England they have always donkeys in their caravans. They are fond of onions and garlic, according to the Oriental custom. They eat all kinds of flesh, even that of animals which have died a natural death; on which account, a murrain is the most welcome event for them. Some thirty or forty years ago they were accused, in Hungary, of having slaughtered human beings and devoured them, and, in consequence of this charge were treated with the greatest severity. Their guilt, however, has never been proved. Brandy is their favourite beverage; tobacco their greatest luxury; both men and women chew and smoke it with avidity, and are ready to make great sacrifices for the sake of satisfying this inclination. They have no peculiar religion. Amongst the Turks they are Mohammedans; and in Spain, at least, as well as in Transylvania, they follow the forms of the Christian religion, without, however, caring for instruction, or having any interest

n the spirit of religion. In Transylvania, they often ave their children baptised repeatedly at different laces, for the sake of the money which it is customary n that country for the god-father to give to the poor arents of his god-child. Marriages are formed in he rudest manner. The young gypsy marries a irl, without caring if she is his sister or a stranger, ften when he is not more than fourteen or fifteen ears old. In Hungary, another gypsy officiates as riest at the wedding. No gypsy will marry any ut one of his race. If he becomes tired of her, he ill turn her off without ceremony. There is no lea of education amongst this people. A blind, lmost animal love for their children, prevents them rom punishing them, so that they grow up in idle- ess, and are accustomed to steal and cheat.

It has been repeatedly proposed to banish this peo- le from Europe. In France and Spain, in Italy and ermany, laws were passed against them in the 16th entury. But even persecutions were of little avail owards rooting them out. They always appeared gain in the southern countries. As they are very umerous in the Austrian states, and have a kind of onstitution there amongst themselves, being in a anner governed by chief gypsies or *waywodes*, the reat Maria Theresa formed the plan of converting hem into orderly men and citizens. In 1768, she ssued an ordinance, that in future, gypsies should well in settled habitations, practise some trade, ress their children, and send them to school. Many f their disgusting customs were prohibited, and it as ordered, that they should forthwith be called Neubauern (*new peasants*), instead of their former ame of *gypsies*. This ordinance remaining ineffec- ual, recourse was had in 1773, to severe measures; he children were taken from their parents, and rought up in Christian principles. But as little as effected in this way as by the very mild measures dopted by the Russian government. However, the rdinances of Joseph II. (1782 et seq.), to forward he improvement of the gypsies in Hungary, Transyl- ania, and the Bannat, have not been without effect.

With regard to their language, most of the words re of Indian origin. They are found, in part, with ttle variation, in the Sanscrit, in the Malabar and engal languages, and many words have been adopt- d from the different nations amongst whom they eside. Heber, bishop of Calcutta, relates, in his arrative of a Journey through the Upper Provinces f India, &c. (London, 1828, 2 vols.), that he met ith a camp of gypsies on the banks of the Ganges, ho spoke the Hindoo language as their mother ngue. Heber found the same people in Persia and ussia. Their grammar is also Oriental, and corre- ponds with the Indian dialects. This similarity annot be considered the work of chance, particularly s their persons and customs show much of the lindoo character. It has even been attempted to erive their origin from a particular caste of the lindoos. But this cannot be the respectable caste f the mechanics and agriculturists. They are more robably a branch of the Parias, who are considered ontemptible by all the other Hindoos, because they ve in the greatest uncleanliness, and eat the flesh of easts which have died of sickness. It cannot, how- ver, be easily explained, why this particular caste hould have left their country and spread throughout urope. The Tschinganes, a nation at the mouth f the Indus, appear, at least, judging from their ame, more likely to be connected with the gypsies. he gypsies also call themselves *Sinde*, a name hich doubtless has some correspondence with ind or *Indus*. Mr Richardson, some time since, escribed an Indian nation whom he called *Nuts* or entschpiri and *Basigers*. (See a discussion on the similarity of the gypsy language with the Hindoo, in the *Transactions of the Lit. Society of Bombay*, 1820.) Although they acknowledge the Moham- medan religion, they are much like the gypsies in customs and manners, in their propensity to thieving, fortune-telling, and uncleanliness.

In 1417, the first mention is made of the gypsies in Germany. They appear to have come from Mol- davia into Germany and Italy. At that time, they al- ready wandered about in hordes with a commander at their head. In 1418, the number which entered Italy alone, was estimated at 14,000 men. There were many in Paris in 1429. They were first believed to be pilgrims, coming from the Holy Land; they were, consequently, not only unmolested, but they received letters of protection; for instance, from Sigismund, in 1423. It is known, however, that in later times, they were very expert in counterfeiting similar documents. What may have been the cause of their leaving their country, is not known; but very probably they were induced to fly from the cruelties exercised by Tamerlane, on his march into India, in 1393, when this savage conquerer filled the country with blood and devastation.

GYPSUM, sulphate of lime, or common plaster of Paris, is found in a great variety of forms. It is either in regular crystals, in which form it is some- times called *selenite*, or in large crystalline plates and masses, which are perfectly transparent, and as pure as the finest plate-glass; or it occurs in fascicular or radiated masses, which are also crystallised; it is sometimes found in snow-white, scaly flakes, like foam or snow; it is sometimes semi-transparent, like horn; and, lastly, it is met with most commonly in large, fine or coarse-grained compact masses, forming rocks, and constituting large and extensive strata. In this form, it exhibits a great variety of colours— white, red, brown, blueish white, &c. The variety of gypsum last described, constitutes all the hills and beds of this mineral, which are so frequent among secondary rocks, and in what are called the *salt* and *coal-formations*. It occurs rarely, if ever, among the primitive rocks, and not often among those of the transition class. It is almost always found associated with the rock salt, whereon salt-springs are found. It contains but few vegetable or animal remains; those that occur, are chiefly bones of quadrupeds, amphibia, fresh-water shells, and vegetable remains. Caves are of frequent occurrence in gypsum. The purer semi-transparent specimens of gypsum are used for ornamental works, as vases, urns, &c., and for statuary; for which purposes its softness makes it very useful, and easy to work; but this also renders it difficult to polish. In this last form, it is the alabaster of the arts. It constitutes the material used in making the fine plastering for the internal finishing of costly edifices, and gives the walls a most beautiful whiteness. It is also used, after being burned, for the composition of stucco-work of all sorts. But the great and important use of gypsum or *plaster*, as it is usually called, is for manuring grass and grain lands; in which case it is truly invalu- able. And it is inconceivable how great an additional quantity of grass will be obtained, by the sprinkling a peck of ground plaster upon the acre of land. It is certainly the cheapest and best manure for grass or grain. It is found in all the countries of Europe.

GYRFALCON, or JERFALCON. See *Falcon*.

GYROMANCY (from the Greek words γυρος a circle, and μαντια, prophecy); the art of prophesy- ing by means of a circle, described by the soothsayer with various ceremonies, and around which he walks, saying magic words, and making mysterious motions, the more effectually to deceive the uninitiated.

H

H; the eighth letter and sixth consonant in the English alphabet. *H* was not always considered a consonant. The other consonants are pronounced with a less opening of the mouth than the vowels, but *h* with a greater opening than even the vowel *a*. In Latin and ancient Greek, it was, therefore, not considered as a consonant, but merely as a breathing. The latter language, as is well known, had no literal sign for it, but merely what is called the *rough breathing* (῾); and in Latin prosody, it is not considered as a letter. In languages in which *h* is considered a consonant, it is classed with the gutturals. In connexion with other consonants, it sometimes renders them softer; as, for instance, after *p*; in Italian, however, it serves to give to *c* and *g*, followed by *e* or *i*, the hard sound (that of *g* in *give*, and *c* in *colour*); hence *che* is pronounced *ke*, and *ghibellino* like *gibeline* in English. It is a very delicate letter, and is frequently not sounded at all; as, in French, in all words beginning with *h* derived from Latin. It also takes the place of other letters, as of *f* (q. v.), in Spanish, or of *c*; as the people in the environs of Saint-Malo say *hlef* and *hloche* for *clef* and *cloche*. In the article *G*, it is shown how intimately *h* is connected with the two guttural sounds of the German *ach* and *ich*; and, as these are only stronger aspirations than *h*, *g* is intimately connected with *h*, as we find to be the case in the Sclavonic languages. In the Bohemian, Wendish, and Sclavonic languages, *h*, at the beginning of a word, particularly before *l* and *r*, is frequently pronounced like *g* or *gh*; as, for instance, *Hlubos* is pronounced *Glubosh*; *Huspodar*, *Gospodar*. The name of the German town *Glaucha* comes from the Wendish *Hluchowe*; and in the Russian alphabet, *g* and *h* have only one character. In the ancient Frankish dialect, *h* often stood before *l*, *r* and *i*; and, at a later period, it was sometimes suppressed, sometimes changed into *ch* or *k*; as *Hlothar*, *Hrudolf*, *Hlodowig*, have become *Lothaire* and *Clothaire*, *Rudolf*, *Ludwig*. But we must not suppose that *h* was not pronounced, wherever it would be difficult for us at present to sound it; because we find the aspirates *h*, *v*, *w*, before *l*, *m*, &c., in the dialects of the North American Indians. An erroneous aspiration early crept into the Latin, of which Cicero complains (*Orat.* 48), and on which Catullus made an epigram (c. 83). The orthography of *pulcher*, *triumphus*, *cohors*, &c., was then substituted for *pulcer*, *triumpus*, *coors*, which, as well as that of *Gracchus* and *Bacchus*, although quite foreign from the Latin, was gradually adopted as the correct one. The Italians have almost entirely banished *h* as an independent letter; they leave it out at the beginning of words, with few exceptions, because it is not pronounced; and instead of *ph*, they write *f*. In the English language, *h* is used, in connexion with *t*, to designate the lisping sound which the Spaniards denote by *z*, and the Greeks by *θ*. The French and German *th* are pronounced like simple *t*. The H of the Greeks was the long *e*, but was sometimes used as an aspirate, as in words in which it precedes *ε*, as HEKATON. It was formed by the union of the two breathings, the rough ῾- and the smooth ᾽-. On Roman coins, inscriptions, and in manuscripts, H has a diversity of meanings, as *honestas*, *hic*, *hæres*, *homo*, *habet*, *hora*, *honos*, *Hadrianus*, &c. On modern French coins, it means the mint of Rochelle. H, among the Greeks, as a numeral, signified 8; in the Latin of the middle ages, 200, and H with a dash over it, 200,000. In music, *h* is the seventh degree in the diatonic scale, and the twelfth in the chromatic; in the solmisation called *b mi*, being the seventh major of *c*, the pure fifth of *e*, and of *g* the third major.

HAARLEM, or HAERLEM; a city in North Holland, on the river Spaaren, about three miles from the sea, eleven miles west of Amsterdam; lon. 4° 38′ 19″ E.; lat. 52° 22′ 56″ N. It communicates with Amsterdam, Leyden and the lake of Haarlem, by several navigable canals. It was formerly a place of strength, but the ramparts are now converted into public promenades. A number of canals traverse the town in different directions, some of them bordered with trees. Among the public edifices are the *stadthouse*, an elegant building, containing a valuable collection of pictures, a mansion or palace of the royal family, and several charitable institutions. The number of churches, great and small, is fifteen; the principal one is said to be the largest in Holland, and contains a collection of antiquities of the time of the crusades, and a remarkable organ. The other objects of interest are, the town library, the anatomical theatre, and the botanical garden. The scientific institutions are, the academy of sciences, founded in 1752, and the horticultural society; to the former belongs a valuable museum. Here are several manufactures on a small scale, viz., jewelry, cotton, linen and silk stuffs, thread and ribbons. Haarlem has long been celebrated for its bleaching grounds. It carries on an extensive traffic in flowers, particularly tulips. Population, 24,000.

HABAKKUK; a Jewish prophet, who flourished about 600 B. C. His prophecy is in an elevated religious, lyrical style. Lamentations for the fearful devastations of the Chaldeans in Judea, and the approaching downfall of the kingdom, consolations and cheering hopes for the future, the humiliation of the conquerors, and a new period of happiness for the Jews, form the contents of his writings. His sentiments and language are greatly admired. With all the boldness and fervour of his imagination, his language is pure, and his verse melodious. His expressions are characteristic and lively. His denunciations are terrible; his derision bitter; his consolation cheering. *Habakkuk* seems to signify *struggler*. He is one of the twelve minor prophets.

HABEAS CORPUS. It is one of the first objects of all civil institutions, to secure to every member the rights of personal liberty, or, in other words, the control and disposition of his own person, at his own will and pleasure, in such manner, however, as not to violate the laws or infringe upon the rights of others. It may seem upon the first consideration of the subject, that this is not an object of the institutions and laws of an arbitrary government, since the sovereign, and those representing him in an executive or military capacity, may seize and imprison any one, with or without cause, or upon grounds more or less important and excusable, according as the government is, in its principles and in its administration, more or less arbitrary. But a slight reflection will show, that, even in the most arbitrary governments,

the first object is, to secure one subject from the seisure of his person, or the violation of his rights, whether of person or property, by another; for in a community of men, where every member should be left at liberty to seize upon and imprison any other, if he had the physical power to do so, there would be, substantially, and to practical purposes, no government at all. There might be an association of men acting under the orders of the prince, and in concert with each other, who should have more power than any other association in the community, and who might, accordingly, by the right of the strongest, seize persons and property at their own will and pleasure; but such an association would hardly deserve the name of civil polity or government, which signifies not merely physical power and superiority of force, which exists among brutes as well as men, but a body of laws more or less extensive, whereby the liberty and rights of the subjects are secured more or less effectually, according to the degree of improvement and perfection in the constitution and laws of the state. In every government, therefore, whether arbitrary or free, or occupying any one of the various degrees in the scale of freedom, one of the first and most important objects, is the security of the persons from violence or detention, not authorized by law. There is, then, this essential difference, in this respect, between different governments;—in those which are arbitrary, the present will of the sovereign, and, accordingly, of those representing him in civil and military capacities, is the law; whereas, in others, the law is a fixed rule, which every citizen or subject may know and conform to, if he chooses; the sovereign and the magistrates being bound by this law no less than the other members of the society. This fixed law settles, beforehand, all the cases in which any person may be detained or imprisoned; and the term *imprisonment*, in this application, does not signify merely shutting up in a gaol, since the voluntary detention of a person in a private house or in the streets, says Sir William Blackstone, is an *imprisonment*. The cases, in which imprisonment is lawful, being thus ascertained by the law, the great provision of *magna charta* intervenes, namely, "That no freeman shall be seised or imprisoned, but by the judgment of his equals or the law of the land." The term *equals* or *peers*, here, has reference to an indictment or trial by jury, or other body, of which the office and functions are equivalent to those of jurors, as is the case in regard to the house of lords, in respect to certain parties and offences. This particular mode of accusation or trial might as well be omitted, and the rule would then stand, that no man should be imprisoned but by the law of the land. It is the law alone that can imprison, and not the sovereign, or any representative of the sovereign, whether the sovereignty resides in one individual or a body, or more than one body of men.

This principle constitutes the leading feature of *magna charta*, and lies at the foundation of every free government. In order to secure personal liberty, and, at the same time, to maintain government, which requires, in the case of crimes and some others, the restraint of the person, it is absolutely essential that the law should not only specify, explicitly, the cases in which the citizen may be seized or imprisoned, but also provide that he shall not be arrested, or restrained of his liberty, in any other case whatever; and such is the law in England. Nor is this principle confined to the person, it being no less the law that a man's goods, than that his person shall not be seised and detained, otherwise than by order of the law.

Such being the rules that lie at the foundation of civil society, the very important question occurs, How these rules are to be enforced; how is the law, most effectually, to guarantee to every one of its subjects, the inviolability of his person and property? The first and most obvious security is that derived directly from the law of nature, and not surrendered among the other sacrifices made by the members of a community to each other, as a condition precedent to the forming of civil society. The law permits every man to defend his person and property, and to repel, by force, any unlawful invasion of either. It will not justify him in using extreme force, and committing any outrageous, disproportionate or wanton injury, in resisting and repelling even an unlawful injury of his person or property; but it will justify him in using a reasonable degree of force, proportioned to the injuriousness or atrocity of the violence attempted by the assailing party. But the law of nature affords but a feeble protection, and men unite in communities, for the purpose of obtaining more effectual defences against wrong, and reparations for injuries when committed; and the very first provision of the law is to inflict punishment for any wrongs and violence, whereby the public is disturbed, and also to make reparation to a party injured. If one man unlawfully seizes the property, or imprisons the person of another, he is, by the laws of every community, liable to make amends in damages. As far, therefore, as an injury is such that it can be repaired by a pecuniary compensation, and as far as the trespasser is able to make such reparation, the remedy is complete. But since trespassers are not always able to make reparation for injuries, and some injuries are such that pecuniary damages are not an adequate reparation, and, also, because the law intends to prevent wrongs, as well as to provide for punishments and compensations where they have been committed, it provides certain processes for immediate prevention, in case of a violent and unauthorized invasion of property or person. Of this character are the processes on complaint for forcible entry on real estate, the action of replevin in respect to goods and chattels, and the writ *de homine replegiando*, or writ of *habeas corpus*, in respect to the person. The writ *de homine replegiando* is similar to that of replevin, and is, in fact, as its name imports, *the replevying of a man*. When a man's person has been carried out of the country, so that he cannot be found, then a process takes place somewhat similar to that adopted when goods are carried off, so as not to be repleviable. In the case of the goods, a process *in withernam* issues, by which other goods are taken. So in the case of the man; the person who thus conveyed him away, is himself taken in a process *in withernam*, as a pledge for the restoration of the person sought to be replevied.

This process of replevying a man is very ancient in the English law; forms of the writ being given by Fitzherbert, and also found in the Register of Writs. But it was not until more than 400 years after the date of *magna charta*, that an adequate remedy was adopted, whereby the great privilege, provided for in that charter, was effectually secured. This security was effected by the *habeas corpus* act, passed in the thirty-first year of Charles II., c. 2. The right is liable to be suspended; it being sometimes necessary to clothe the executive with an extraordinary power, as the Romans were in the habit of choosing a dictator in emergencies, when the public was in danger. This, as Sir William Blackstone says, is the sacrifice of the security of personal liberty for a time, the more effectually to secure it in future. At all times, when the privilege is not suspended by law, every citizen has a right to this writ. The laws of England provide, that, if the chancellor or any of the twelve judges refuses the writ when the party is

entitled to it, he incurs a very heavy forfeiture to the complainant. The party being thus brought up, the judge determines whether he is entitled to be discharged, absolutely, or to be discharged on giving a certain bail, or must be remanded to prison. If the imprisonment is wholly unauthorized, the complainant is discharged; if it be not unauthorised, but is yet for a cause in which the party is entitled to be discharged on giving bail, the judge ordèrs accordingly. This is the writ which is justly denominated the *great bulwark* and second *magna charta* of British liberty. It not only protects the citizen from unlawful imprisonment, at the suggestion of the civil officers of the government, in behalf of the public, but also against groundless arrests at the suit or instigation of individuals. There are other writs of *habeas corpus*, but the one we have described is always intended when the terms are used without explanation.

HACHE D'ARMES (*French*); the battle-axe, or mace, of the knights.

HACIENDA (*Spanish*); a farm, singly situated; also public revenue.

HACKBERRY, or HOOP ASH (*celtis crassifolia*, an American tree, abundant in the basin of the Ohio and beyond the Mississippi, and occurring sometimes on the eastern slope of the Alleghanies, especially in the basins of the Susquehanna and Potomac. It grows to a great height, but the thickness of the trunk is not proportional. The leaves, which are not unlike those of the mulberry, are larger than in the other species of nettle-tree, ovate and acuminate; the small white flowers are succeeded by one-seeded berries, of a black colour, and resembling peas in size and shape. The wood, on account of its aptitude to decay, is little used, but is said to make very fine charcoal.

HACKERT, PHILIP; a distinguished German landscape painter, was born at Prentzlow, in the Ukermark, in 1737, and died at Florence, 1806. His four younger brothers were also distinguished in the arts, three of them in painting, and one (George) in engraving. In 1768, Philip Hackert went to Italy. On his return from Naples (in 1770) to Rome, Catharine, empress of Russia, employed him to paint six pictures representing the two battles of Tschesme. These laid the foundation of his fame. In order to enable the artist to form a correct notion of the explosion of a vessel, count Orloff caused a Russian frigate to be blown up in his presence. The singularity of this model, many months before spoken of in all the European papers, contributed not a little to increase the fame of the picture. In 1782, he was presented to Ferdinand, king of Naples, whose favour he soon gained. In 1786, he received an appointment in Naples. When the revolutionary war broke out, being considered by the royalists as a republican, and by the French as a royalist, he was obliged to retire to Florence, where he died in 1806. His forte lay in painting scenes. To originality of composition his pictures have no claim. He was also skilful in restoring pictures, as appears by his letter to lord Hamilton, *Sull' uso della vernice nella pittura* (1788). He communicated fragments to Goethe, on landscape painting, who published *Ph. Hackert's Biographische Skizze, meist nach dessen eignen Aufsätzen*. This work contains anecdotes of king Ferdinand, such as his formal distribution of pieces of wild boar's flesh among his favourites, according to their rank, and other stories of the same sort, illustrating the imbecility of the Neapolitan court, depicted, likewise, in Collingwood's Letters.

HACKMATACK; a term applied, in many parts of the United States, to the American larch. See *Larch*.

HACKNEY; a large and populous village and parish in Middlesex, two miles from London, to which it is joined by several new rows and streets. It has a receptacle for lunatics. St John's palace, an ancient house in Well's Street, now let out in tenements to poor families, is believed to have been the residence of the prior of the order of St John of Jerusalem. In this parish, south of Seabridge, are the Temple mills, once belonging to the knights Templars. It is supposed that hackney coaches were first established between this place and London, and derived their name from it. Population of the parish, in 1831, 31,047.

HACKNEY; a horse kept to let. This term in England is often shortened into hack.

Hackney coach; a coach kept to let. Hackney coaches began first to ply, under this name, in London, in 1625, when they were twenty in number. See *Coaches*.

HADDINGTON, the county town of Haddingtonshire, or East Lothian, is situated on the left bank of the river Tyne, 16½ miles from Edinburgh, and 38 from Berwick-upon-Tweed. It consists of a main or High street, lying in the direction of east and west, and forming a continuation of the great road from Edinburgh to London, with a back street parallel to it on the north, and two cross streets at their eastern extremity. The main street is spacious and elegant, containing many handsome buildings. A bridge of four arches connects the town with the ancient suburb of Nungate, which lies on the right bank of the Tyne, and carries across the road to Dunse. It is not known at what time Haddington was erected into a royal burgh, as all its ancient records are lost. In 1244, it was consumed by fire; in 1356, it was burned by Edward III.; and in 1598, it was almost again consumed. In 1548, it was taken by the English, and sustained a long siege until they evacuated it in 1549. In 1421, on St Ninian's day, it suffered greatly by an inundation; and on the 4th October, 1775, the Tyne rose seventeen feet above its usual level, and laid half the town under water. Haddington possesses a venerable church, formerly collegiate, and belonging to a Franciscan monastery, founded here in the twelfth century; a very elegant episcopal chapel; commodious county and town-halls; excellent grammar, English, and music schools, with suitable apartments for the masters, whose stipends are supplied from the public revenue of the burgh, arising chiefly from feu duties, petty customs, &c. It has also a school of arts; a public library left to the town by Mr John Gray, and a subscription library.

From the remaining vestiges of its ancient fortifications, Haddington was doubtless at some remote period a post of great strength and importance; in ages also it had a sort of claim to the title of "The Commercial Metropolis" of this part of Scotland, being the place where the court of "The Four Burghs" used to assemble, under the presidency of a chamberlain, for the purpose of deciding all disputes regarding traffic. Its principal trade now consists in corn, the market for which (held on Friday) is the best in Scotland; the manufacture of woollen cloth, introduced under the auspices of Cromwell, after his decisive victory at Dunbar; and the tanning of hides. The business of the two latter branches is chiefly carried on in a street named Hardfordgate, on the opposite bank of the Tyne, noted as the birthplace of the celebrated reformer, John Knox; and in Nungate, remarkable for the ruins of its once magnificent abbey, or nunnery, founded in 1178 by Ada, mother of Malcolm IV. This abbey, during the siege of Haddington, in 1548, was the seat of the parliament that resolved upon giving [illegible]

ary in marriage to the Dauphin, and caused her be educated at the French court.

The parish of Haddington, which lies on both les of the Tyne, comprises 12,000 acres, well in-osed, and arable, with a few exceptions on the rders of Glades-Muir, where the soil is exceedingly erile, but has lately been planted with oak and her wood. Population of burgh and parish in 1831, 83.

HADDINGTONSHIRE, or EAST LOTHIAN, county in the south-east part of Scotland, bounded Berwickshire on the south and south-east; by the rman Ocean on the east; by the Firth of Forth on e north; and by the county of Edinburgh, or Mid-othian, on the west and south-west. Its length is om west to east about twenty-five miles, and its readth from south to north about eighteen; but, om the irregularity of the sides, it seems to contain superficies of not more than 297 square miles, or 0,363 English acres.

Haddingtonshire may be divided, in an agricultur-view, into four districts. 1st, The coast lands, a ripe of varying breadth, commencing at Ravens-ugh burn on the west, and terminating at the eas-m extremity of the county, uniformly inclining to-ards the sea throughout the whole of its extent; 1, The midland district, comprehending the whole that ridge, of which the south side leans to the ale of Tyne, and the lands situated immediately to e south of that river, a tract which commences at e western extremity of the county, but terminates considerable way inland on the east; 3d, The up-nd district, running along the bottom of the moun-inous tract nearly the whole length of the county; d 4th, The mountainous or Lammermuir district, mprehending that extensive range of hills which ns from the south-west along the southern boun-ary, and terminates at St Abb's Head. From the ore elevated part of the Lammermuir district, the ew is rich and beautiful. From the Garleton hills, the centre of the county, the inequalities of the rface are more discernible, and the various objects rought nearer to the eye of the observer. Spartle-n hill, about 1615 feet above the level of the sea, the highest point of the range of the Lammermuir ights. Traprene Law, a rocky hill, of an oval rm, rises singly in an open country to the height of 0 feet above the level of the sea, and affords from summit a most distinct and extensive prospect. orth Berwick Law, a conical hill of a beautiful ape, about half a mile from the sea, is about 800 et in height; and Down hill, or Dun hill, in the arish of Spot, is about 500 feet above the sea.

The prevailing rocks of this county are coal, sand-one, limestone, and marl. Coal was dug at Pres-n-grange, by the monks of Newbottle so early as e year 1200. Sandstone or freestone is very abun-ant, and is quarried at Barra, Pencaithland, and anent. Iron ore is found in several places; and n iron work is carried on at Fawside, near the last entioned village. There are mineral springs in the arishes of Humbie, Pencaithland, and Spot, which re much esteemed as remedies for scorbutic disor-ers; and one has been discovered at Salton House, f the same nature and virtue as the Bristol waters. carcely any part of the county is above six miles istance from lime rock. The principal natural curi-sities in the county are the rocky head, on the west ide of the harbour of Dunbar, which is composed of ed freestone, and on each side bears a great resem-lance to the Giant's Causey in Ireland; and the lass rock in the Firth of Forth, where fowl of vari-us kinds, particularly gannets or solan geese, and ittiewakes, a species of gull, abound.

The principal antiquities of Haddingtonshire are the hill forts of the original Celtic inhabitants, and the castles of the feudal ages. Of the former class are the camp in Bolton parish, called Chesters; the circular camp at Garvald, another at Carfrae, and one of great extent on Priestlaw, in Whittingham parish, besides many circular fortlets found almost on every rising ground. Of the latter description are the castle of Dunglass, often mentioned in the Scottish annals as the guard of that pass into North Britain; the castle of Dunbar, which sustained so many formidable attacks, but was at last demolished in 1567, as the residence of the noted earl of Bothwell; the castle of Dirleton, which arrested the progress of Edward I. in 1298; the castle of Hailes, on the southern banks of the Tyne, which, along with the preceding, was demolished by Cromwell in 1650; the castle of Tantallon, on a high rock overhanging the sea, two miles east of North Berwick, demolished in 1639; the castle of the Bass, which had sheltered James the infant heir of Robert III. and in the reign of Charles II. was employed as a state prison.

In agricultural operations and produce, Haddingtonshire holds the first rank in Scotland; and will bear a comparison with the best improved districts of England. From the end of the 11th century, the progress of agriculture was greatly promoted in East Lothian by the kings and barons, and especially by the monks, who pursued even at that early period the practice of draining and enclosing. The great number of mills, which existed every where throughout the county, afford some proof of the extent of its agriculture during the twelfth and thirteenth centuries; but the wasteful wars which followed the death of Alexander III., produced the most ruinous consequences in East Lothian; and, notwithstanding all the efforts which were made during the reign of the Bruces and Stuarts to regain the ancient husbandry, it was not till the era of the Union that the spirit of agricultural improvement revived in this county, and before the year 1743 it had become the best cultivated district in Scotland. Among the various improvements of this nature, which seem to have originated in East Lothian, may be mentioned the practice of sowing grass seeds, introduced by the sixth earl of Haddington; the use of the fanners imported from Holland by Meikle the mill-wright, under the patronage of Fletcher of Saltoun; the horse-hoeing husbandry by the elder Mr Wight; the plan of hollow-draining by Patrick Lord Elibank and Sir Hugh Dalrymple; the levelling and straightening of ridges by two farmers of the name of Cunningham; the culture of turnips by John Marquis of Tweedale, and Sir George Suttie; and the planting of potatoes, as a field crop, by Hay, a farmer of Aberlady. The farms of Haddingtonshire are all large, varying from two to five hundred acres, and some greatly exceeding that amount.

The manufactures of Haddingtonshire are inconsiderable. A coarse woollen cloth, originally intended for domestic uses, has long been fabricated among the inhabitants, particularly in the county town; and at Athelstonford a variegated kind of stuff, called Gilmerton gray, is made at a moderate price. There is a manufacture of cordage and sail-cloth at Dunbar, but not of great extent, and a few linens have been made at different places. The first bleachfield in Scotland is said to have been established in this county, under the patronage of Cockburn of Ormiston. The first work of that kind, belonging to the British Linen Company, was fixed at Saltoun, under the inspection of Fletcher, Lord Milton. There is a cotton mill in the parish of Dunbar, and a soap manufacture in the town. At Prestonpans, there have existed for more than half a century works for pottery, for stone-ware, for nitric acid, muriatic acid, &c. There is a

manufactory of brown stoneware, and another of glass bottles; at Morison's-haven a considerable tannery; a small manufactory of locks and nails at Tranent; and a paper-mill at Saltoun. A salt-work was established at Prestonpans about the end of the twelfth century, and along this part of the coast the produce of this article used to be at least 30,000 bushels yearly. The oyster and herring fisheries were, from a very early period, highly productive. Population of the county in 1801, 29,986; in 1831, 36,145.

HADDOCK (*gadus æglefinus*). This fish appears in such shoals as to cover a tract of many miles, keeping near the shore. In stormy weather, they will not take the bait. The fishermen assert, that they then bury themselves in the mud, and thus shelter themselves till the agitation of the water has ceased. In proof of this, they allege that those which are taken immediately after a storm are covered with mud upon the back. The common size of the haddock is twelve inches. It has a brown back, a silvery belly, and a black lateral line. On each side, about the middle, is a large black spot, the prints, as is superstitiously believed, of the finger and thumb of St Peter, when he took the tribute money from its mouth; but, unfortunately, the haddock is not the only fish thus distinguished. It derives its specific name from *eaglefin*, which was anciently its common appellation.

A popular method of curing the haddock in Scotland is to cleanse it, steep it for a short time in brine, and smoke it over a wood fire. This method of curing the haddock was first practised in the village of Finnon, Aberdeenshire, and the fish so prepared are hence called Finnon Haddocks. A very considerable traffic is now carried on with this commodity between the fishing villages of the north and the cities of Edinburgh, Glasgow, and London. When properly prepared, it forms an agreeable relish to breakfast.

HADES. See *Pluto*.

HADJY; the title of a Mohammedan who performs a pilgrimage to Mecca—a religious act, which every true believer is directed to perform, at least, once. *Hadj* is the name of the celebration which takes place on the arrival of the caravans of pilgrims at Mecca. (For an account of it, see the article *Arafat*). A very interesting description of the *hadj*, and the numberless pilgrims, together with Mecca and the Caaba, is to be found in Burckhardt's Travels (2 vols. 4to., London).

HADLEY, JOHN, inventor of the quadrant that goes by his name. It is singular that the exact year of the birth and death of this ingenious man is unknown. Maitland, in his history of London, styles him a great master of hydraulics, having made many improvements in the machinery of the water works at the old London bridge. But whatever may have been his talents as an engineer, he is best known as the inventor of the instrument above alluded to, for measuring the angles of celestial objects at sea. His claim to the merit of the invention of the quadrant, or rather octant, which measures angles by double reflection, has been disputed by the Americans, who attribute it to Mr Godfrey of Philadelphia. Both Hadley and Godfrey produced their instruments in 1731; but it is highly probable that Hadley had completed his instrument some time before this, as he was on habits of intimacy with Newton, who many years ere this had conceived the idea of measuring angles by double reflection, as appears by his posthumous works. Hadley also invented the instrument called the sextant, much used at sea, and which can take all angles within 120°. Hadley seems to have been alive in 1783.

HADRIATIC. See *Adriatic*.

HÆMA (from the Greek *αἷμα*, blood); a word which appears in a great number of scientific compounds, particularly in botany, mineralogy, and medicine.

HÆMATICS (from *αἷμα*, Greek, *the blood*); the branch of physiology which treats of the blood.

HÆMATITE, Red, and Brown. See *Iron, Ores of*.

HÆMUS, in ancient geography; a chain of mountains running eastwardly from the ancient Orbelus to the Pontus Euxinus, and separating Mœsia from Thrace. It terminated in a cape on the Black sea, called *Hæmi Extrema*, at present *Emineteghi*. The modern name of the Hæmus is *Balkan*. (q. v.) Fable derives this name from Hæmus, king of Thrace, who, considering himself equal to Jupiter, was changed, with his wife, who compared herself to Juno, into this mountain.

HÆNKE, THADDEUS, a Bohemian naturalist, philosopher and traveller, who was invited by the Spanish government to accompany Malaspina on his voyage round the world, in 1789. He arrived at Cadiz twenty-four hours after the expedition had set sail. He followed it in the next vessel that sailed to the river Plata, but was wrecked on the coast of Montevideo. Hænke swam safe ashore, with his Linnæus and his papers in his cap; and, finding that the expedition had already set sail, he determined to seek captain Malaspina in St Jago, by crossing the Andes. Without any knowledge of the language of the country, and without any assistance, this courageous predecessor of Humboldt surmounted all obstacles, and succeeded in joining Malaspina. Hænke never returned to Europe; he died in America, perhaps purposely detained. The royal Bohemian national museum possesses his collections of natural history. It was published at Prague, in 1825, *Reliquiæ Hænkeanæ, seu Descriptiones et Icones Plantarum quas in America Merid. et Boreali, in Insulis Philippinis et Marianis collegit Thaddeus Hænke* (with twelve engravings).

HAFF, an antiquated German word, signifying the sea, and also a large bay, which appears in geographical names, as *Curische-Haff*. *Hâvre*, in French, as *Hâvre de Grace*, is derived from it; and Aarhuus in the Danish, *Kiœbenhavn* (Copenhagen), port of merchants, is connected with it; as are also the Swedish *ham* or *hamn*, signifying *port*, as in *Friedrichshamn* (Frederic's port), the English *haven*, and the German *hafen*.

HAFIZ, or HAFEZ, MOHAMMED SCHEMSEDDIN, one of the most celebrated and most charming poets of Persia, was born at the beginning of the fourteenth century; studied theology and law, sciences which, in Mohammedan countries, are intimately connected with each other. The surname Hafiz was given him because he knew the Koran by heart. He preferred independent poverty, as a dervise, to a life at court, whither he was often invited by sultan Ahmed, who earnestly pressed him to visit Bagdad. He became a sheik, or chief of a fraternity of dervises, and died probably at Shiras, in 1389, where a sepulchral monument was erected to him, which has been often described by travellers; but, in October, 1825, an earthquake at Shiras destroyed, among many other buildings, the monument of Hafiz, together with that of the celebrated Sadi. Some idea of his style and sentiments may be obtained through the medium of translations. Sir William Jones published translations of two of his odes, which are extremely beautiful; besides which, may be noticed Nott's Select Odes of Hafiz, translated into English Verse, with the Original Text (1787, 4to), and Hindley's Persian Lyrics, from the Divan-I-Hafiz, with Paraphrases in Verse and Prose (1800, 4to). The songs of Hafiz

ere collected into a *divan*, after his death, which as published complete (Calcutta, 1791), and transted into German by the celebrated Orientalist, von ammer (2 vols. Stuttgard, 1812—1815). The ems of Hafis are distinguished for sprightliness and nacreontic festivity. He is not unfrequently loud praise of wine, love, and pleasure. Some writers ve sought a mystic meaning in these verses. Feloun, Sururi, Sadi, and others, have attempted to plain what they supposed to be the hidden sense.

HAGAR (i. e., the *stranger*); an Egyptian slave Abraham's house. She was presented, by her istress Sarah, to Abraham, in order that Abraham ight not die without descendents, Sarah herself beg barren. Hagar bore Ishmael; but Sarah soon came jealous of her, and treated her severely. agar fled, but afterwards returned, and, when Sarah re Isaac, was sent away by Abraham, who, the ible informs us, had received a divine order to dis- is her. She suffered much distress in the desert, t was relieved by an angel, and married her son to Egyptian woman. (*Gen.* i. 16, 21.) Saint Paul akes her the allegorical representation of the raelites, who were deprived of any participation in e gospel, as she with her son did not inherit anything from Abraham. (*Gal.* iv. 21.)

HAGEDORN, FREDERIC von, a German poet, was rn in Hamburg, in 1708. He received a good ucation, and displayed talents for poetry when ung; but, becoming an orphan at the age of fourn, he found himself dependent on his own exerons for support. He, however, continued studying the gymnasium at Hamburg, till 1726, when he moved to the university at Jena, as a law student. 1729, he published a small collection of poems; d the same year he went to London, in the suite of e Danish ambassador, baron von Sœlenthal, with hom he resided till 1731. He obtained, in 1739, e appointment of secretary to the English factory Hamburg, which placed him in easy circumstances. was not till 1738 that he again appeared before e public as an author, when he printed the first ook of his Fables, which were much admired. In 740, he published the Man of Letters, and, in 1743, s celebrated poem on Happiness, which established is reputation as a moral writer. The second book f his Fables appeared in 1750; and he afterwards roduced many lyric pieces in the style of Prior. He ied of dropsy in 1754. Wieland, in the preface to is poetical works, terms him the *German Horace*.

HAGER, JOSEPH; a distinguished Orientalist, rofessor of the Oriental languages in the university Pavia, was born about 1750, at Milan, of a German family. He first distinguished himself in the erary world by the discovery of the fraud of a cilian monk, named Vella, who had attempted to pose on the court of Palermo by some forged documents relative to the history of Sicily. Hager left lermo for England, where he in vain endeavoured excite the attention of the public in favour of his searches concerning Chinese literature. His prensions as an Oriental scholar were questioned by ector Antonio Montucci, an Italian resident in that untry, who was engaged in similar pursuits. Hager blished an Explanation of the elementary Characrs of the Chinese, with an Analysis of their Symbols d Hieroglyphics (London, 1801, folio), and a Disrtation on the newly-discovered Babylonian Inscripons (1801, 4to). He then went to Paris, where he oduced the following works: the Monument of Yu, e most ancient Inscription in China (1802, folio); Description of the Chinese Medals in the Imperial abinet of France (1805, 4to); the Chinese Panon, or a Comparison of the Religious Rites of the reeks with those of the Chinese (1806, 4to). From Paris Hager removed to Milan, where he published, in Italian, Illustrations of an Oriental Zodiac, preserved in the Cabinet of Medals at Paris, and which was discovered near the Site of Ancient Babylon (1812, folio). In his *Miniere*, he intended to show that the Turks were formerly connected with the Chinese. His Observations on the Resemblance between the Language of the Russians and that of the Romans (Milan, 1817), is full of hypotheses. Julius Klaproth has shown that Hager's works, though they have great merit, contain gross mistakes. He died at Milan, June 27, 1820.

HAGGAI; one of the minor prophets, who, immediately after the return of the Jews from exile, urged the rebuilding of the temple, as a condition of the divine blessing for the new state. (*Ezra* v. 12; vi. 4.) He therefore lived in the time of Darius Hystaspes, Ezra, and Zacharias. Some critics have thought that the writings now bearing his name are only summaries of his works, because, they say, they show a poverty of ideas and imagination. The best modern edition of Haggai is in Rosenmuller's *Schol. in Vet. Test.*, p. 7, vol. iv, where the former commentaries are also to be found.

HAGIOGRAPHA (ἅγιος, holy). The Jews divide the Old Testament into three parts: 1. the law, which comprehends the five books of Moses; 2. the prophets; and, 3. the writings termed by them *Cetubim*, and by the Greeks *Hagiographa*, whence the word has been introduced into the English language. The *Cetubim* comprehended the books of Psalms, Proverbs, Job, Daniel, Ezra, Nehemiah, Chronicles, Ruth, Lamentations, Ecclesiastes, and Esther. The *Hagiographa* were distinguished from the prophecies, because the matter contained in them was not received by the way of prophecy, but simply by direction of the Spirit.

HAGUE, THE (German, *Haag*; Dutch, *Gravenhage*); a beautiful town in South Holland, ten miles S. S. W. Leyden, and 30 S. W. Amsterdam, and nearly three from the sea-coast. It yields to few cities in Europe in the beauty of its streets, the stateliness of its buildings, and the pleasantness of its situation. The principal streets of the Hague are wide, straight and handsome. There are here six squares and a fine park, all of which form pleasant promenades. Of the public buildings, the old palace is an enormous pile, presenting specimens of almost every species of architecture. The mansion of the family of Bentinck, that of prince Maurice, and the new palace begun by William III., are all deserving of attention. The number of churches is fourteen; and there are also several charitable institutions. The greatest defect in this pleasant town arises from the neglect of the canals, several of which are stagnant, and emit a disagreeable smell, which forms a strange contrast to the general cleanliness of the place. On the south-east of the Hague, at a distance of about a mile and a half, is the castle of Ryswick, which gave its name to the well known treaty of 1697. The Hague became, in 1250, the residence of the governors or counts of Holland. It suffered greatly in its importance after the erection of Holland into a kingdom by Bonaparte. Before the late revolution, it was, alternately with Brussels, the residence of the king and place of meeting of the states. (See *Netherlands.*) Population, 44,000.

HAHN, PHILIP MATTHEW, a celebrated mechanical genius, born in 1739, at Scharnhausen. In his thirteenth year, finding in his father's library an account of the mode of constructing sun-dials, he immediately set about making one. At the age of seventeen, he went to the university of Tubingen, where he spent his leisure hours in making sun-dials and speaking-trumpets, grinding glasses, &c. To learn the construction of watches, he lived upon

bread and water till he had saved money enough to enable him to purchase one. He continued his labours with unremitting assiduity, and eventually produced works of great ingenuity; as, a clock showing the course of the earth and other planets, as well as that of the moon and other satellites, and their eccentricities; a calculating machine; and many others. He died in 1790.

HAI *(sea)*; a Chinese word, appearing in many geographical words; as, *Kan-hai* (Sand-sea).

HAIL appears to be a species of snow, or snowy rain, which has undergone several congelations and superficial meltings, in its passage through different zones of the atmosphere, some temperate and others frozen. It is generally formed in sudden alternations of the fine season. Hailstones are often of considerable dimensions, exceeding sometimes the length of an inch. They sometimes fall with a velocity of seventy feet a second, or about fifty miles an hour. Their great momentum, arising from this velocity, renders them very destructive, particularly in hot climates. They not only beat down the crops, and strip trees of their leaves, fruits and branches, but sometimes kill even large beasts and men. The phenomena attending the formation and fall of hail are not well understood. But it is certain that they are connected with electricity. This fact we find noticed by Moses, who relates that "the Lord sent thunder and hail, and the fire ran along upon the ground" *(Gen.* ix. 23). This has been supposed to account for the great variations of temperature to which the hail has evidently been subjected, in its passage through the different strata of the atmosphere. Artificial hail can be produced by an electrical apparatus, and volcanic eruptions are often followed by a fall of hailstones of great size. Hail-rods have been erected, at the suggestion of Volta, in countries much exposed to the ravages of hail-storms, on the same principle as lightning-rods. They consist of lofty poles, tipped with metallic points, and having metallic wires communicating with the earth. By thus subtracting the superabundant electricity from the clouds, he imagined that the formation of hail might be prevented. These rods are used in Germany and Switzerland, but their success is not proportionate to the expectations entertained of them. The violence with which hail is discharged upon the earth, under an oblique angle, and independently of the wind, would be explained by Volta's supposition, that two electrical clouds are drawn towards each other in a vertical direction, and by their shock produced hail, which, by the law of the composition of forces, would be projected in the diagonal of its gravity, and of the result of the direction of the clouds. In Germany, there are companies which insure against damage by hail.

HAILES, Lord. See *Dalrymple, Sir David.*

HAILING; the salutation or accosting of a ship at a distance, which is usually performed with a speaking-trumpet; the first expression is *Hoa, the ship ahoay*, to which she answers *Holloa;* then follow the requisite questions and replies, &c.

HAINAUT, or HAINAULT. (*Hene-gowen* in Dutch, *Hennegau* in German); a province of the Netherlands, bounded north by East Flanders and South Brabant, east by Namur, south and south-west by France, and north-west by West Flanders; population 497,819. Square miles, 1683. It is divided into three districts,—Mons, the capital, Tournay and Charleroy. It is generally level, with beautiful undulating plains and a fruitful soil. Grain is abundant, pastures excellent; minerals,—iron, lead, marble, but especially coal; in the eastern part are considerable forests. The principal rivers are the Scheldt, the Selle, the Haine, the Sambre and the Dender. In the time of the French republic and empire, it belonged to the department of Jemappes. Part of it was formerly under the Austrian government, and was called *Austrian Hainault.*

HAIR; the fine, threadlike, more or less elastic substance, of various form and colour, which constitutes the covering of the skin, particularly of the class of mammalia. It is of a vegetative nature, and appears also in animals of the lower orders, and, indeed, in all animals which have a distinct epidermis; therefore in insects. In the crustaceous animals, it sometimes appears in particular places, as the feet or the margins of the shell, on the outside of the jaw, and grows in tufts. Hair is most distinctly developed in those insects—as caterpillars, spiders, beetles—which have a soft skin; in this case, it even appears of a feathery form; and butterflies are covered all over with a coat of woolly hair, of the most variegated and beautiful colours. The same variety and brilliancy are displayed in the feathers of birds, which may be considered as analogous to hair, while the two other classes of animals—fishes and reptiles—have no hair whatever. No species of mammalia is without hair in an adult state, not even the cetacea. In quadrupeds, it is of the most various conformation, from the finest wool to the quills of a porcupine or the bristles of the hog. The hair, which is spread over almost the whole of the skin, is comparatively short and soft. On particular parts, a longer, thicker and stronger kind is found; as, for instance, the mane, fetlocks and tail of the horse, the lion's mane, the covering of man's occiput, his beard, the beard of goats. The colour of the hair generally affords an excellent characteristic of the species or variety; but climate, food and age produce great changes in it. The human body is naturally covered with long hair only on a few parts; yet the parts which we should generally describe as destitute of it, produce a fine, short, colourless, sometimes hardly perceptible hair. The only places entirely free from it are the palms of the hands and the soles of the feet; but the body of the negro often produces hair like that of the head, on the breast, shoulders, arms, &c. Each hair originates in the cellular membrane of the skin, from a small cylindrical root, which is surrounded by a covering or capsule, furnished with vessels and nerves, called the *bulb.* The root is tubular, and contains a semi-gelatinous fluid. The pulp on which the hair is formed, passes through the bottom of the bulb in order to enter the tube of the hair, into which it penetrates for a short distance, never, in ordinary hairs, reaching as far as the external surface of the skin. According to Vauquelin, black hair consists of 1. an animal matter, which constitutes the greater part; 2. a white concrete oil, in small quantity; another oil, of a grayish-green colour, more abundant than the former; 4. iron, the state of which in the hair is uncertain; 5. a few particles of oxide of manganese; 6. phosphate of lime; 7. carbonate of lime, in very small quantity; 8. silex, in a copious quantity; 9. lastly, a considerable quantity of sulphur. The same experiments show that red hair differs from black only in containing a red oil instead of a blackish-green oil; and that white hair differs from both these only in the oil being nearly colourless, and in containing phosphate of magnesia which is not found in them.

The human hair varies according to age, sex, country and circumstances. The fœtus has, in the fifth month, a fine hairy covering, which is shed soon after birth, and appears again at the age of puberty. With the seventh month, the first traces of hair on the head are visible in the embryo. At birth an infant generally has light hair. It always grows darker and stiffer with age. The same is the case

ith the eyelashes and eyebrows. At the age of uberty, the hair grows in the *axilla*, &c., of both xes, and on the chin of the male. At a later period, begins gradually to lose its moisture and pliability, d finally turns gray, or falls out. These effects e produced by the scanty supply of the moisture ove mentioned, and a mortification of the root. ut age is not the only cause of this change; dissipa-n, grief, anxiety, sometimes turn the hair gray in very short time. It begins to fall out on the top the head. The hair of men is stronger and stiffer; at of females longer (even in a state of nature), icker, and not so liable to be shed.

Blumenbach adopts the following national dif-rences of hair:—1. brown or chestnut, sometimes proaching yellow, sometimes black, soft, full, wav-g; this is the hair of most nations of central Europe: black, stiff, straight and thin, the hair of the longolian and native American races; 3. black, soft, rly, thick and full hair; most of the inhabitants of e South Sea islands have it; 4. black, curly wool, longing to the negro race.

The hair, with the nails, hoofs, horns, &c., is one the lower productions of animal life. Hence in a althy state, it is insensible, and the pain which we el when hairs are pulled out arises from the nerves hich surround the root. It grows again after being t, and, like plants, grows the more rapidly if the utritive matter is drawn to the skin by cutting; yet, a diseased state, and particularly in the disease lled the *plica Polonica*, it becomes sensitive and in-med to a certain degree, bleeds, and is clotted by a cretion of lymph, which coagulates into large lumps.

Hair not only serves as a cover or ornament to the dy, but exercises an imporant influence on absorp-on and perspiration; where the hair is thick, the per-piration is freer. If the root is destroyed, there is no eans of reproducing the hair; but if it falls out, ithout the root being destroyed, as is often the case fter nervous fevers, the hair grows out again of elf. If the skin of the head is very dry and scurvy, ollifying means will be of service; strengthening tments should be applied, in case the skin is eak. This shows how little reason there is in commending oils in all cases, while the falling out f the hair may be owing to very different causes. hough hair, in a healthy state, grows only on the ternal parts of the body, cases are not unfrequent which it is formed inside of the body in diseased arts. How much the hair differs in its character om the other parts of the body (being, as we have id, of a vegetable nature), is strikingly shown om the circumstance that it continues to grow after eath.

As the hair is a very conspicuous object, and cap-ble of much alteration, the arrangement of it has ways been one of the most important duties of the ilet. The comb is one of those simple and yet useful ventions, which must have naturally suggested them-lves in the early periods of our race. (See *Comb*.) or some rules respecting the dressing of the hair, and account of some curious customs connected with , we refer the reader to the Young Ladies' Book London, 1830). The ancient Hebrews esteemed fine ir a great beauty, as several passages of Scripture ow; and baldness is even threatened as a sign of od's anger. (*Isaiah* iii. 17, 24). The Mosaic law ves rules respecting the hair (third book of Moses, x. 27). The Hebrew women paid very great atten-on to their hair; plaited it, confined it with gold and lver pins, and adorned it with precious stones. *saiah* iii. 22). The misfortune of Absalom shows at men also valued long fine hair highly. (2 *Samuel* iv. 26.) Strong hair, as many passages show, was onsidered a proof of strength, and means were used to strengthen it; it was anointed with perfumed oil. According to Josephus, the body-guard of Solomon had their hair powdered with gold dust, which glitter-ed in the sunshine.

Artificial hair is a very early invention. It was used by the Greeks and the Carthaginians, and par-ticularly by the Romans, among whom artificial tresses were sold. In the time of Ovid, the Romans imported much blond hair, which was then fashion-able, from Germany; and those Roman ladies who did not wear wigs, and yet wished to conform to the fashion, powdered their hair with a kind of gold dust. The art of dyeing hair has been ascribed to Medea, and was, of course, much practised by the Romans. (For more information respecting this point, see Bottiger's *Sabina*, or Morning Scenes at the Toilette of a Roman Lady (written in German, and translated into French), a work of great interest.) A hair-dresser was called, in Greek, *βοστρυχοκόλλος*, *τριχοβοστρυχος*; in Latin, *cinifio cinerarius*; the female hair-dresser, *ornatrix*. Circular pins of silver have been found in Herculaneum, which served to keep together the dif-ferent rows of curls arranged all round the head; this being, among the Roman ladies, the most general fashion; and the higher the hair could be towered up, the better; though they also wore the Spartan knot behind (for a well-formed head, a very graceful and becoming dress). They likewise wore hanging curls on the side. Fashion also regulated the dress of the hair of the men, in the later times of Rome. It was cut, for the first time, when a boy had attained his seventh year, and the second time when he was fourteen years old.

On the introduction of Christianity, the apostles and fathers of the church preached against the pre-vailing fashion of dressing the hair. It became more common for men to cut the hair short, at least it was considered more proper; hence the clergy soon wore the hair quite short, and afterwards even shaved their heads in part. (See *Tonsure*.) But even the ex-communications fulminated in the middle ages against long hair and the extravagant ornamenting of it, could not put a stop to the custom. It must be re-membered that, among the ancient Greeks and Ro-mans, cutting the hair was a great dishonour. Hence prisoners of war, and slaves who had committed any offence, had their heads shaved or hair cut. With the Lombards, it was a punishment for theft under a certain small sum; and, according to the old law of the Saxons (*Sachsenspiegel*), for stealing three shil-lings in the day time. Hence the former expression in Germany, *jurisdiction of the skin and hair*, that is jurisdiction over minor offences, the highest punish-ment of which was flogging and cutting the hair; and *jurisdiction of the neck and hand*, that is, jurisdiction over aggravated offences, with the right to punish by death.

The ancient Gauls wore their hair short, but the Franks long, and combed back, or in a knot behind; the magistrates wore it on the top in a tuft, as some North American Indians still do. Among the Frank-ish kings, it was at first a privilege of the princes of the blood to wear the hair long; and, on the de-thronement of a Frankish prince, his hair was cut, and he was sent into a convent. Long hair soon became a privilege of the nobility. Women, in the beginning of the Frankish monarchy, wore the hair loose, but soon after began to wear caps. From the time of Clovis, the French nobility wore short hair; but, as they became less martial, they allowed the hair to grow longer. In the time of Francis I., king of France, long hair was worn at court; but the king, proud of his wound on the head, himself wore short hair, in the Italian and Swiss fashion, which soon became general. In the reign of Louis XIII.

the fashion of wearing long hair was revived, and, as it became desirable to have the hair curl, the wigs were also restored. It was reserved for the French revolution, which overturned so many institutions of the "good old time," to bring back Europe to natural and unpowdered hair. The French, the leaders in almost all fashions, are pre-eminent in hair-dressing. We may remark that, in the north of America, hair does not grow so full as in Europe, and hence much more artificial hair is worn. In southern Asia, the men turn their whole attention to the beard, and shave the head. But the women cultivate their hair with great care, and dye and ornament it in every possible way. The African tribes generally grease their hair.

HAIR'S BREADTH; a measure of length, being the forty-eighth part of an inch.

HAKE (*gadus merluccius*). This fish belongs to that division of the genus which has two dorsal fins. In shape, it is not very unlike a pike, and has hence been termed the *sea-pike* by the French and Italians. The mouth is large, and is furnished with double rows of sharp teeth. The back part of the tongue, the palate, and the throat, are also armed with sharp spines or teeth. Hakes are very abundant in particular situations on the Irish coast; but, after appearing for a number of years, they seem to take a dislike to their accustomed haunts, and seek others. This is not peculiar to the hake, as the herring and various other fish are in the habit of relinquishing their stations for a considerable time, and then reappearing. Naturalists have not given any satisfactory explanation of this singularity in the migration of fish. It may, in some instances, be occasioned by the close pursuit of an unusual number of predatory fish, to avoid the voracity of which, they may be driven upon shores that they were formerly unaccustomed to frequent; or a deficiency of their usual food may force them to abandon a residence where they could no longer be supported.

HAKIM; a Turkish word, originally signifying *sage, philosopher*, and then, very naturally, a *physician*, as medicine and natural philosophy, among all nations in a low degree of civilization, are the same. *Hakim bashi* is the physician of the sultan, that is to say, the chief of the physicians, always a Turk; whilst the true physicians in the seraglio under him are western Europeans, Greeks and Jews. Under Achmet I., there were twenty-one physicians in the seraglio, besides forty Jews. How well a Christian physician is received in the Turkish empire, in comparison with other *infidels*, may be seen from the travels in that country; for instance, in Madden's.

HAKLUYT, Richard, one of the earliest English collectors of voyages and maritime journals, was born in 1553. He entered Christ-church college, Oxford, and became so eminent for his acquaintance with cosmography, that he was appointed public lecturer on that science. In 1582, he published a small Collection of Voyages and Discoveries, which formed the basis of a subsequent work, on a larger scale. About 1584, he went to Paris, and staid there five years. After his return home, he was chosen, by Sir Walter Raleigh, a member of the corporation of counsellors, assistants and adventurers, to whom he assigned his patent for the prosecution of discoveries in America. In consequence of this appointment, he prepared for the press his collection of The Principal Navigations, Voyages and Discoveries of the English Nation, made by Sea, or over Land, within the Compass of these 1500 Years. The first volume, in folio, was published in 1589, and the third and last in 1600. Besides narratives of nearly 220 voyages, these volumes comprise patents, letters, instructions and other documents, not readily to be found elsewhere. He died in 1616, and was interred in Westminster abbey. He published several other geographical works; among them is Virginia richly valued, by the Description of Florida (London 1609, 4to). An edition of his works was published in London, 1809—1812, 5 vols. 4to. The manuscript papers of Hakluyt were used by Purchas. (q. v.)

HALBARD, or HALBERT, in the art of war, a well known weapon carried by the sergeants of foot, is a sort of spear, the shaft of which is about six feet long. Its head is armed with a steel point, edged on both sides; but, besides this sharp point, which is in a line with the shaft, there is a cross piece of steel, flat, and pointed at both ends, but generally with a cutting-edge at one extremity, and a less sharp point at the other, so that it serves equally to cut down or push with.

HALBERSTADT, a Prussian city, in the province of Saxony and government of Magdeburg, has 14,700 inhabitants, and manufactures cloth, linen and leather. It was the capital of the eponymous principality of Halberstadt. It has ten churches, besides the cathedral of St Stephen. It is a place of great antiquity, and is supposed to have been built by the Cherusci. The buildings are in the Gothic style, and of antique appearance. A remarkable diet of the German empire was held here in 1134. It is a walled city. Lat. 51° 53′ 55″ N.; lon. 11° 4′ E.

HALCYON. See *Kingfisher*.

HALDE, John Baptiste du, a learned Jesuit, was born at Paris in 1674. He was intrusted by his order with the care of collecting and arranging the letters sent by the society's missionaries from the various parts of the world. He was also secretary to father Le Tellier, confessor to Louis XIV. He died in 1743, much esteemed for his mildness, piety and patient industry. He is chiefly known as the editor of the *Lettres édifiantes et curieuses*, from the ninth to the twenty-sixth collection, to which he wrote useful prefaces; and also for his compilation entitled *Description historique, géographique, et physique, de l'Empire de la Chine, et de la Tartarie Chinoise* (4 vols. folio, Paris, 1735). The latter work, which, with some retrenchments, has been translated into English, is deemed the most complete general account of that vast empire which has appeared in Europe.

HALE, in the sea language, signifies *pull*.

HALE, Sir Matthew, an eminent English judge, was born at Alderley, in Gloucestershire, in 1609. He received his early education under a Puritanical clergyman, and afterwards became a student at Magdalen Hall, Oxford, whence he removed, in his twenty-first year, to Lincoln's Inn. He is said to have studied sixteen hours daily, extending his researches to natural philosophy, mathematics, history and divinity, as well as the sciences more immediately connected with his profession. He was called to the bar previously to the commencement of the civil war; and, in the conflict of parties which took place his moderation, accompanied, as it was, by personal integrity, and skill in his profession, secured him the esteem of both royalists and parliamentarians in his own time. Imitating Atticus rather than Cato, he adhered to the triumphant party, and scrupled not to take the covenant, and become a lay-member of the famous ecclesiastical assembly at Westminster. Yet he acted as counsel for the accused on the trials of the earl of Strafford, archbishop Laud, and even of the king himself. In 1652, he was placed on the committee appointed to consider of the propriety of reforming the law. In 1654, he became a judge of the common bench (the former king's bench), in which station he displayed firmness of principle and

cient to give offence to the protector; and, finding he could not retain his office with honour, he refused to preside again on criminal trials. After the death of Oliver Cromwell, he refused a new commission from his son and successor. He was a member of the parliament which restored Charles II., and he was one of the members most active in passing the act of indemnity. In November, 1660, he was knighted, and made chief baron of the court of exchequer. He presided at the condemnation of some persons arraigned for witchcraft, at Bury St Edmund's, in 1664, and was the last English judge who sanctioned the conviction of culprits for that imaginary crime. He was raised to the chief-justiceship of the king's bench in 1671, where he sat till 1676, towards the end of which year he died. After his death appeared his History of the Pleas of the Crown, the Jurisdiction of the Lords' House, and The History of the Common Law of England; of which there have been repeated editions, with comments. His valuable collection of manuscripts relating to history and jurisprudence, is preserved in the library of Lincoln's Inn. Sir Matthew Hale also wrote several works on scientific and religious subjects.

HALE, NATHAN, an officer in the American revolutionary army, was born in Coventry, Connecticut, and was graduated at Yale college, in 1773. As the contest between the mother country and the colonies was then waging, he offered his services to the latter, and obtained a captain's commission in colonel Knowlton's regiment of light infantry, which formed the van of the American army. After the retreat of general Washington from Long Island, by which it was left in the possession of the British, that commander applied to colonel Knowlton to adopt some means of gaining information concerning the strength, situation, and future movements of the enemy. The colonel communicated this request to Captain Hale, who immediately volunteered his services; and, conquering his repugnance to assume a character foreign to his nature, in the hope of being useful to his country, passed in disguise to Long Island, examined every part of the British army, and obtained all the requisite information. In attempting to return, however, he was apprehended, and brought before sir William Howe, who ordered him to be executed, the next morning, on his acknowledging who he was, and what was his object, when he found the proof against him too strong to be gainsayed. This sentence (conformable, it is true, to the laws of war) was carried into effect in the most unfeeling manner. He was refused the attendance of a clergyman; and the letters which he wrote, a short time before his death, to his mother and others, were destroyed, in order, as was said by the provost marshal, "that the rebels should not know they had a man in their army who could die with so much firmness." The untimely end of this promising but unfortunate young man resembles that of major André.

HALES, ALEXANDER DE; surnamed the *irrefragable doctor*; an English ecclesiastic, celebrated among the controversialists of the thirteenth century. He studied at the universities of Oxford and Paris, in which latter city he died in 1245.

HALF MARK; a noble, or six shillings and eight pence.

HALF MOON, in fortification; an outwork composed of two faces, forming a salient angle, whose gorge is in form of a half moon.

HALF PIKE; a defensive weapon, composed of an iron spike, fixed on an ashen staff. Its use is to repel the assault of boarders in a manner similar to the defence of the charged bayonet among infantry; hence it is frequently termed a *boarding pike*. It takes the epithet of *half*, from its having a much shorter staff than the whole pike.

HALIBUT. See *Holibut*.

HALICARNASSUS; the capital of Caria, in Asia Minor, and the residence of the Carian kings. It was once an important commercial city. The present name is *Bodrun* or *Budron*. It lies opposite the island of Stanchio. Queen Artemisia erected here the celebrated mausoleum in honour of her husband, king Mausolus. Halicarnassus was the native place of Herodotus, Dionysius the historian, and Dionysius the musician (who wrote on music in the time of Adrian); also of the poets Hecatæus and Callimachus. For a description of its charming situation, see the *Travels of the Younger Anacharsis*.

HALIFAX, a large manufacturing town in the west riding of Yorkshire, erected into a borough in 1831, and which now sends two members to parliament. Population by last census, 31,317.

HALIFAX; a city, and the capital of Nova Scotia, on Chebucto bay. The harbour of Halifax is one of the best in America; a thousand ships may ride in it in safety. It is in lat. 44° 40′ N., and lon. 63° 40′ W. from Greenwich. It is easy of access at all seasons of the year. Its length from N. to S. is about sixteen miles, and it terminates in a beautiful sheet of water, called Bedford Basin, within which are ten square miles of good anchorage. The harbour is well fortified, and has an extensive dock-yard. The city of Halifax is situated on the western side of the harbour, on the declivity of a commanding hill, whose summit is 256 feet above the level of the sea. Halifax was first settled by a colony under the command of the honourable Edward Cornwallis, in 1749. In 1790, it contained 4000 inhabitants; in 1828, the number of houses was 1580, and the population 14,439. At the same period, there were two Episcopal churches, a large and splendid Catholic chapel, two meeting-houses for Presbyterians, one for Methodists, two for Baptists, and one for Sandemanians. The most important of the government establishments is the dock-yard. It has a high wall on the side towards the town, and contains very commodious buildings for the residence of the officers and their servants, besides stores, warehouses, and work-shops. The province-building is an elegant edifice, and contains the various provincial offices, and apartments for the council, house of assembly, and superior court. There are several other public buildings of good construction; but in general the large buildings of the city are of freestone, and are not designed for splendour. Dalhousie college was established in 1820, but has not gone into operation. There are no periodicals published, nor are any European or American books reprinted at Halifax. The only publications in Nova Scotia are the newspapers, of which there were, in 1828, six at Halifax and one at Pictou. See Haliburton's *Account of Nova Scotia*, Halifax, 1829.

HALIFAX, LORD. See *Montague*.

HALL, ROBERT, a celebrated divine among the dissenters in England, was born at Arnsby, Leicestershire, in August, 1764. He was the son of the reverend Robert Hall, a Baptist minister of Arnsby. His father early remarked his precocity of talent, and observed to a friend, that at "nine years, he fully comprehended the reasoning in the profoundly argumentative treatise of Jonathan Edwards on the will and affections." In 1773, he was placed under the instruction of the eccentric, yet learned and pious John Ryland, of Northampton. At about fifteen years of age, he became a student in the Baptist college at Bristol. On reaching his eighteenth year, Mr Hall entered king's college, Aberdeen, having

obtained an exhibition. Here he commenced his acquaintance with sir James Macintosh, who was his fellow student. After receiving his second degree, he was chosen as colleague with doctor Evans, in the ministry at Bristol, and adjunct professor in the institution. Mr Hall soon became followed and admired by a class of hearers whose approbation might well be valued by any man. His public services were crowded to excess. But, in the midst of his popularity, a dark cloud arose, which threatened to deprive the Christian world of a bright ornament; his friends trembled as they witnessed the most unequivocal symptoms of a disordered mind. After confinement from public life, and a long course of judicious treatment, his lofty mind regained its liberty and power. In 1791, Mr Hall removed to Cambridge, and became successor to the extraordinary Robert Robinson. He soon became celebrated as a writer, by his publication of a pamphlet entitled Christianity not inconsistent with the Love of Freedom. This was shortly after followed by his Apology for the Freedom of the Press, which remains, to the present day, a standard work. Dugald Stewart deemed it the finest specimen of English composition extant at the time when it appeared. But his Sermon upon Modern Infidelity established his fame as a divine. In 1802, Mr Hall's mind again received a shock, which required his abandonment of pulpit labours. On recovering from his malady, he became pastor of the church at Leicester. His ministry in that populous town was equally successful. Here Mr Hall, for twenty years, exercised his talents for the good of an affectionate people; but, in 1825, the church at Broadmead, Bristol, which had enjoyed his earliest labours, having lost their pastor, the learned and venerable doctor Ryland, president of the college, invited him to labour amongst them; and, in 1826, Mr Hall removed to Bristol, where his popularity was as great as it had been in other places. He died in the year 1832. Benevolence and humility were the prominent features of his moral character. The late doctor Parr was his intimate friend, and left him a valuable and flattering legacy. He says of him, in his last will and testament, "Mr Hall has, like Jeremy Taylor, the eloquence of an orator, the fancy of a poet, the subtlety of a schoolman, the profoundness of a philosopher, and the piety of a saint."

HALLE; a Prussian city, province of Saxony, on the right bank of the Saale, with 2152 houses, and 23,873 inhabitants; lat. 51° 29′ 5″ N.; lon. 11° 58′ 10″ E. Halle is first mentioned in 806, when Charlemagne erected a castle here against the Vandals. The name is derived from the salt-works of this city, among the most ancient of Germany, and producing at present from 14,000 to 16,000 tons of salt annually. These works are still called, by way of eminence, *die Halle*.* The country around Halle is very fertile, and agriculture is flourishing; there are also many coal mines. But this city is particularly famous for her university, founded by Frederic I., king of Prussia, and opened in 1694; hence called the *Frederic university*. The great elector of Brandenburg had founded an academy in 1688, which, in 1694, was changed into a university, when Thomasius came hither from Leipsic, followed by a number of students. A series of distinguished professors, and the liberal provisions of government, have raised this university to the rank of one of the first in Europe, in almost all branches; for instance, Meckel, Reil, J. A. Wolff, Vater, Gesenius, Tholuck, Wegscheider, Pfaff, &c. Napoleon suppressed the university, after the battle of Jena, in 1806. After the peace of Tilsit, it was re-established under the kingdom of Westphalia, and received also professors from the universities of Rinteln and Helmstadt, then abolished; but the number of students never exceeded 300 or 400. In 1813, many students having left Halle to join the Prussian troops, Napoleon again abolished the university, and measures were already taken for carrying the order into effect which were interrupted by the battle of Leipsic. A Prussian ordnance of April 15, 1815, united the university of Wittemberg (quite near to Halle) with that of Halle. The institution thus formed now bears the name of the *United Frederic university of Halle-Wittemberg*. The university has since that time advanced rapidly. In 1828, there were 1761 students. In 1824, there were 760 students of theology. The theological faculty has six ordinary and four extraordinary professors. The library of the university contains 60,000 volumes, with a collection of copperengravings, &c. Halle was, for a long time, the seat of a theology which adhered strictly to the views and dogmas of the first reformers, or, if it deviated from them at all, inclined rather to mysticism, but has lately become the chief seat of rationalism in Germany, principally through Gesenius and Wegscheider. The Prussian government has ordered an inquiry into the tenets of these professors, which will most probably lead to nothing decisive. See the articles *Franke's Institution*, and *Canstein*.

HALLE, or HALL, EDWARD; an English chronicler, whose works rank with those of Holinshed and Stow. He was a native of London, and was a lawyer by profession, having attained the rank of a serjeant, and the office of a judge in the sheriff's court. He had a seat in the house of commons, and was a zealous Catholic, though he lived at the period of the reformation. His death took place in 1547. Halle's Chronicle was published in 1548, by Richard Grafton, who is reported to have written the latter part of it. The work is curious, as affording delineations of the manners, dress, and customs of the age.

HALLEIN, a town of the Austrian empire, in Salsburg, containing 600 houses and 6000 inhabitants, on the Salza, at the foot of the Durrenberg, has important salt works. The salt is here, as in the neighbouring Berchtesgaden (q. v.), obtained from brine. About 20,000 tons are made annually. Pins are made here in great quantity, and the cotton manufactures in the vicinity employ 12,000 people.

HALLELUJA, or HALLELUJAH, or ALLELUJA (*Hebrew*); praise the Lord; an expression which occurs often in the Psalms, and which was retained when the Bible was translated into the various languages, probably on account of its fine and fine sound, which, together with its simple and solemn meaning, so proper for public religious services, has rendered it a favourite of musical composers. The vowels in it are very favourable for a singer. The Roman Catholic church does not allow it to be sung on the Sundays during Lent, on account of the mournful solemnity of the season; and in that church it is not sung again before Easter. It is no longer sung in masses for the dead, as formerly. The Greeks made an earlier or more common use of the Halleluja than the Latin church. The Jews call the Psalms 113—117, the *Great Halleluja*, because they celebrate the particular mercies of God towards the Jews, and they are sung on the feast of the Passover, and on the feast of Tabernacles.

HALLER, ALBERT VON; a celebrated Swiss physician, distinguished not only for his acquaintance with the physical sciences, but also for his great knowledge of literature, and his talents as a poet.

* There are also places in Suabia, the Tyrol, Brabant, called *Halle*, from salt-works.

His father, Nicholas von Haller, was an advocate and citizen of Berne, where the son was born in October, 1708. The early display of his abilities was most extraordinary, and it is related, that, when but ten years old, he could translate from the Greek; that he compiled a Chaldee grammar, and a Greek and Hebrew dictionary, for his own use; extracted 2000 biographical articles from Bayle and Moreri, and gave other proofs of his devotion to literary studies. He was sent to a public school after his father's death, of 1721; and, in 1723, he was removed to the house in a physician at Bienne, for the study of philosophy. Here he pursued a somewhat desultory course of reading, and exercised himself in poetical composition. However, at the close of the year last mentioned, having chosen the medical profession, he went to the university of Tubingen, where he studied comparative anatomy; and, in 1725, he removed to Leyden, then the first medical school in Europe, Boerhaave and Albinus being among the professors. He took his degree at Tubingen, whither he went for that purpose, and sustained a thesis, *De Ductu Salivali Coschwiziano*, which topic he farther pursued, in another thesis, at Leyden, in 1727. That year, he visited England, and formed an acquaintance with sir Hans Sloane, Cheselden, doctor James Douglas, and other eminent men. Thence he went to Paris, and dissected under Ledran; but he was obliged to leave that metropolis, in consequence of having caused subjects for dissection to be brought to his lodgings—a piece of indiscretion which attracted the notice of the police. He then went to Basil, to study mathematics under John Bernoulli, continuing at the same time his anatomical investigations. Here he first imbibed a taste for botany, and laid the plan of a work, which he long after published, on the plants of Switzerland. Here, too, he indulged his predilection for poetry, and in his twenty-first year composed his poem On the Alps, followed by various ethical epistles and other pieces, which gave him a reputation in Germany.

In 1729, Haller returned to his native city, and entered on his professional career as a public lecturer on anatomy. He did not, however, obtain among his countrymen that encouragement which his talents deserved, owing, in some measure, to a satirical spirit, which occasionally displayed itself in his poetical compositions. In the summers, he made botanical excursions in Switzerland, in the course of which he also applied himself to the study of mineralogy and zoology. In 1736, he was invited, by George II., to accept the professorship of anatomy, surgery, and botany, in the newly founded university of Gottingen. He accepted this offer; but his removal to Hanover was attended with a domestic misfortune, the death of his wife, whom he had married in 1731, and to whom he was much attached. He endeavoured to alleviate his sorrow by close application to scientific pursuits. Through his influence, the university was enriched with a botanical garden, an anatomical theatre, a school for midwifery, and a college of surgery. His own researches in physiology alone, were enough to immortalise his name. After the death of his master, Boerhaave, in 1738, Haller published his Prelections, with much original matter, in six vols., which appeared successively from 1739 to 1745. But his own discoveries and improvements tended to render this work obsolete; and in 1747, appeared the first edition of his *Primæ Lineæ Physiologiæ*, a synopsis of his own system of that important branch of medical science, as subsequently developed in a larger work. This is a truly valuable production, which, long after the death of the author, was used as a text-book in schools of medicine, and has only been superseded since the extraordinary scientific discoveries of our philosophical contemporaries. In 1752, he first advanced his opinions on the properties of sensibility and irritability, as existing in the nervous and muscular fibres of animal bodies; doctrines which attracted much attention, and excited great controversies in the medical world. He was, in 1748, elected a member of the royal society of Stockholm, and of that of London in the following year. He likewise received the title of physician and counsellor to king George II., at whose request Francis I. gave him a patent of nobility, as a baron of the German empire.

After seventeen years' residence at Gottingen, his disagreements with his colleagues induced him to return, in 1753, to Berne, where his countrymen received him with the respect due to his great fame and talents. He settled again among them; and having been elected a member of the sovereign council of the state, he soon obtained by lot one of its magistracies, and entered with zeal on the duties of a citizen. He did not neglect his scientific pursuits. He continued to contribute to the Gottingen *Gelehrte Anzeigen* (for which he wrote more than 12,000 articles), to hold the presidency of the royal society of science, and to receive his academical pensions. In 1754, he published at Lausanne, in French (which he wrote with facility), some memoirs on irritability and sensibility, and on the motion of the blood. He was elected, in 1754, one of the foreign associates of the Paris academy of sciences. In 1758, he accepted the appointment of director of the public salt-works at Bex and Aigle, with a small salary. He resided six years at La Roche; and, in the course of his superintendence, he introduced many improvements in the manufacture of salt. While thus engaged, he began the publication of his *Elementa Physiologiæ Corporis Humani* (Lausanne, 1757—1766). His next important literary labours were the *Bibliothecæ*, containing chronological catalogues of works of every age, country, and language, relative to subjects connected with medical science, with concise analyses, and notices of peculiar and important facts and opinions. These libraries of professional knowledge were published in the following order: *Bibliotheca botanica* (1771, 2 vols. 4to); *Bibliotheca anatomica* (1774, 2 vols. 4to); *Bibliotheca chirurgica* (1774, 2 vols. 4to); *Bibliotheca Medicinæ practicæ* (1776—1788, 4 vols. 4to, the last two volumes having appeared posthumously). On his return from La Roche, he was chosen member of the chamber of appeal for the German district, of the council of finance, and of other bodies; and also perpetual assessor of the council of health. His various duties as a statesman, a physician, and a medical teacher, occupied his attention till his death, which happened December 12, 1777. He had previously suffered much from illness; but his last moments were peculiarly tranquil. Placing his finger on his wrist, to observe the motion of the artery, he suddenly exclaimed to his physician, "My friend, I am dying; my pulse stops;" and he immediately expired.

Haller is considered one of the greatest German poets of the eighteenth century. His philosophical and descriptive poems display depth of thought and richness of imagination. He had to contend with a language which was then imperfect, and to the polishing of which his writings contributed. His style is not, however, wholly faultless; for, in aiming at conciseness and compression, he sometimes becomes obscure. He wrote, in prose, three philosophico-political romances,—Usong, Alfred the Great, and Fabius and Cato,—designed to exhibit the respective advantages of different forms of government; and corresponded, in German, Latin, Italian, English, and French, with all parts of Europe. His Letters to his

Daughter, on the Truth of the Christian religion, were translated into English; and he also wrote Letters on Free-Thinking, designed to confute the reasonings of French sceptical philosophers, who had borrowed arguments in favour of their speculations from his physiological theories.

HALLEY, EDMUND, a distinguished mathematician and astronomer, was born in London, in 1656, and was sent first to St Paul's school, and then to Queen's college, Oxford, of which he became a commoner in his seventeenth year. Before he was nineteen, he published A direct and geometrical Method of finding the Aphelia and Eccentricity of Planets, which supplied a defect in the Keplerian theory of planetary motion. By some observations on a spot which appeared on the sun's disk in July and August, 1676, he established the certainty of the motion of the sun round its own axis. August 21st, the same year, he fixed the longitude of the cape of Good Hope, by his observation of the occultation of Mars by the moon. Immediately after, he went to St Helena, where he staid till 1678, making observations on the fixed stars of the southern hemisphere, which he formed into constellations. In 1679, he published *Catalogus Stellarum Australium, sive Supplementum Catalogi Tychonici*, &c., which procured him the appellation of the *southern Tycho*. He then went to Dantsic to settle a dispute between the English philosopher Hooke, and the famous Hevelius, relative to the use of optical instruments in astronomical researches, deciding in favour of the latter. In 1680, he set off on a continental tour, and at Paris made acquaintance with Cassini. After visiting Italy, in 1681 he returned to England, and settled at Islington, where he fitted up an observatory for his astronomical researches. In 1683, he published his Theory of the Variation of the magnetical Compass, in which he endeavours to account for that phenomenon, by the supposition of the whole globe of the earth being one great magnet, having four circulating magnetical poles, or points of attraction. His theory, though unsatisfactory, is ingenious. The doctrines of Kepler relative to the motions of the planets next engaged his attention; and finding himself disappointed in his endeavours to obtain information on the subject from Hooke and sir Christopher Wren, he went to Cambridge, where Newton, then mathematical professor, satisfied all his inquiries. In 1691, he was a candidate for the Savilian professorship of astronomy at Oxford, which was obtained by doctor David Gregory. According to Whiston, he lost this office in consequence of his character as an infidel in religion. For the purpose of making further observations relative to the variation of the compass, he set sail on a voyage in 1699, and, having traversed both hemispheres, arrived in England in September, 1700. The spot at St Helena, where he erected a tent for making astronomical observations, is distinguished by the appellation of *Halley's Mount*. As the result of his researches, he published a general chart, showing at one view the variation of the compass in all those seas where the English navigators were acquainted. He was next employed to observe the course of the tides in the English channel, with the longitudes and latitudes of the principal headlands; in consequence of which, he published a large map of the channel. In 1703, he was engaged by the emperor of Germany to survey the coast of Dalmatia; and, returning to England in November of that year, he was elected Savilian professor of geometry on the death of doctor Wallis; and he was also honoured with the diploma of LL.D. He subsequently published a Latin translation from the Arabic of a treatise of Apollonius Pergæus, a Greek geometer, to which he made additions, to supply the place of what was lost. He next assisted his colleague, doctor Gregory, in preparing for the press Apollonius On Conic Sections. In 1719, he received the appointment of astronomer royal at Greenwich, where he afterwards chiefly resided, devoting his time to completing the theory of the motion of the moon, which, notwithstanding his age, he pursued with enthusiastic ardour. In 1721, he began his observations, and, for the space of eighteen years, he scarcely ever missed taking a meridian view of the moon, when the weather was not unfavourable. In 1729, he was chosen a foreign member of the academy of sciences at Paris. He died January 14, 1742, at Greenwich; and he was interred at the church of Lee, in Kent. In 1752 appeared his Astronomical Tables, with Precepts, in English and Latin, for computing the places of the Sun, Moon, Planets and Comets (4to); and he was the author of a vast multitude of papers in the philosophical Transactions.

HALO is an extensive luminous ring, including a circular area, in the centre of which the sun or moon appears; whose light, passing through an intervening cloud, gives rise to the phenomenon. Those about the moon are most common. When the sun or moon is seen through a thin cloud, a portion of the cloud round the sun or moon appears lighter than the rest, and this luminous disc is called a *corona*. Coronas are of various sizes, but they seldom exceed 10° in diameter; they are generally faintly coloured at their edges. Frequently, when a halo encircles the moon, a corona surrounds it. *Parhelia*, or mock suns, vary considerably in general appearance. sometimes the sun is encircled by a large halo, in the circumference of which the mock suns usually appear, which have often small halos round them.

HAMADRYADS, in mythology; eight daughters of Hamadryas, by her brother. They received their names from trees, and are the same as the Dryads (q. v.) They were conceived to inhabit each a particular tree, with which they were born, and with which they perished. Whoever spared a tree to their entreaties, they rewarded, while the destroyer of groves was sometimes severely punished. See *Erisichthon*.

HAMAH; a place in Syria, famous as Abulfeda's birthplace. It has, according to Burckhardt, from 60 to 100,000 inhabitants, who live chiefly by manufacturing silk and cotton.

HAMAN; a name meaning *full of grace*. See *Esther*.

HAMANN, JOHN GEORGE, who called himself the *Northern Magian*, was born at Konigsberg, in 1730, travelled about in different parts of his native country, was private tutor in several places, received an office in the customs at Konigsberg, in 1777, and died at Munster, in 1788. Between 1759 and 1784, he published several humorous works, whose value the public did not then appreciate; but since Herder, Jacobi, Goethe and Jean Paul Richter have spoken of them with approbation, they have been republished (Leipsic, 1821—1825.)

HAMBURG, the most considerable of the free cities of Germany, is situated about eighty miles from the mouth of the Elbe, upon the northern bank of the river, which is navigable for large vessels as far as this port. The circuit of the city is about 22,000 feet. In the northern part is a lake, formed by the small river Alster, which runs through the city into the Elbe, and turns several mills. An arm of the Elbe enters the city from the east, and is there divided into a number of canals, which take various directions, till they unite, and join the Alster in the southern part of the city, where they form a deep harbour for ships, which communicates with the main branch of the river. Here is a large space enclosed

by strong piles, where ships may lie in safety; it is called *Rummelhaven*. Canals intersect the lower part of the city in all directions, and almost all the stores are built upon their banks. In this part of the city, and also in that which lies on the east of the Alster, the streets are, for the most part, narrow and crooked. Many of those in the western or New Town, are broader and straighter. The city contains nineteen churches, of which sixteen are Lutheran, one Catholic, and two Calvinistic, with some synagogues for 8000 Jews. In the suburb of St George, there are 1200 houses and a Lutheran church. The church of St Michael, with its tower, 456 feet in height, built by Sonnin (q. v.), and intended for astronomical observations and for experiments in natural philosophy, was finished in 1786. This building, and some of the private houses, are remarkable for their architecture. The exteriors of the exchange and the council-house are also handsomely ornamented. Among the most remarkable buildings are the bank, the admiralty buildings, the orphan asylum, the new general hospital, the theatres, the exchange, the city and commercial libraries, Roding's museum, &c. The gymnasium and the Johanneum are excellent institutions for education. The building for the school of navigation, opened in 1826, is provided with an observatory, and a botanic garden is also annexed to it. In institutions for the relief of the destitute, for the sick, and for the education of poor children, Hamburg is inferior to no city in Germany. Most of these are under the direction of private individuals, and they are principally supported by voluntary contributions.

The constitution of Hamburg is aristocratic. The government consists of four burgomasters and twenty-four counsellors, and fills its own vacancies by an artful combination of chance and of choice. Three of the burgomasters and eleven of the counsellors are lawyers; the rest are merchants. To the senate are attached four syndics and four secretaries. Calvinists are excluded from the government of Hamburg, as Lutherans are from that of Bremen. The ordinary public business, both internal and external, is transacted by the senate alone; matters of more importance are regulated in connexion with the citizens possessed of a certain property. These are divided into five parishes, each of which sends thirty-six members to the assembly or college of the 180. From these are chosen the members of the council of sixty, and again from these fifteen elders. Each of these colleges has peculiar privileges. The senate and the elders alone receive salaries. Justice is administered by several courts. The court of appeal of the free cities of the Germanic confederacy, is the supreme tribunal. The public revenues were formerly considerable, without the taxes being oppressive; but the heavy debts incurred by the city, of late years, have greatly increased the taxes. The citizens are provided with arms, and accustomed to military exercises, so as to form a body of infantry, cavalry and artillery, in regular uniform, amounting to about 10,000 men. The removal of the old fortifications was commenced, in 1804, and the great French works have also been since demolished. The wall has been turned into a park.

The territory of Hamburg (116 square miles) is bounded by that of Holstein on the north and west; the city of Altona, in the territory of Holstein, is not two miles distant from the gates of Hamburg. Towards the east, the Hamburg territory borders on Lauenburg, and on the south it is separated by the Elbe from the territories of Hanover. Some of the islands in the Elbe belong also, either wholly or in part, to Hamburg, together with the village of Moorburg on the left bank. Besides this, it has jurisdiction over the bailiwic of Ritzebuttel, which contains the important town of Cuxhaven, at the mouth of the Elbe. Hamburg, in common with Lubeck, also has jurisdiction over the bailiwic of Bergedorf, with the small town of the same name, over the Vierlands, and a few places in Lauenburg. The population belonging to the city of Hamburg is about 122,000, and that of the lands over which it has separate or concurrent jurisdiction, about 28,000.

The city owes its foundation to the emperor Charlemagne, who, in the beginning of the ninth century, built a citadel and a church on the heights between the Elbe and the eastern bank of the Alster, as a bulwark against the neighbouring pagans. The adaptation of the place for commerce and fishing, attracted many settlers. Although its barbarous neighbours frequently destroyed this settlement, it was as often re-established, and the city was enlarged by new buildings. It became important as a commercial city in the twelfth century, and in the thirteenth it was one of the founders of the Hanseatic league. Even after the decline of the confederacy, it maintained its freedom and flourishing commerce. The Hanseatic league with Lubeck and Bremen subsisted till 1810, and has been renewed since 1813 and 1814. Until 1500, the city was confined to the strip of land between the Elbe and the eastern bank of the Alster. The western bank was gradually built upon, principally by exiles from the Netherlands. Thus arose the New Town, which was so important, even in the early part of the thirty years' war, that it was enclosed within the fortifications, and thus gave to the city its present extent. In 1618, Hamburg was formally acknowledged a free city of the empire, although the archbishops of Bremen continued to maintain possession of the cathedral, which fell to Sweden at the peace of Westphalia, and was afterwards ceded, with the duchy of Bremen, to Hanover. The thirty years' war, amidst the devastations of which Hamburg was spared, increased the number of its inhabitants, as late wars in Europe have also done, during which many persons emigrated there from the Rhine, from the Netherlands, and from France. Its commerce increased in the same proportion, and compensated, in a great degree, for the loss in its manufactures, occasioned by the awakened spirit of industry, and by the non-importation acts of foreign powers. Its sugar-refineries, manufactories of whale-oil, ship-yards, and establishments for printing cotton, are still important. The commerce of Hamburg was increased, particularly by its direct intercourse with the United States of America, and by the war in the Netherlands and on the Rhine, by which it obtained a considerable share of the commerce of those countries. Thus, at the beginning of the present century, Hamburg was one of the richest and most prosperous of the free cities. Its reverses began, in 1803, with the entrance of the French into Hanover. They took possession of Ritzebuttel, and closed the Elbe to the British, who, in turn, closely blockaded the mouth of the river. Hamburg was now obliged to carry on its maritime commerce through Tonningen and Husum; and whatever was exported through Hanover and the Elbe, had to be accompanied with certificates that it did not come from British hands, for which certificates the French authorities asked a high price. The city was obliged to advance 2,125,000 marcs banco to the states of Hanover. After the battle of Lubeck, Mortier entered Hamburg (19th Nov. 1806), and, although the French troops evacuated it again after the peace of Tilsit, and it yet retained, for a few years, the shadow of its former independence, it was still, during this period, oppressed in a thousand ways by French commanders. Then came the de-

crees of Napoleon, which gave, as far as was possible, a final blow to the commerce and industry of Hamburg. At last, Hamburg, with the whole north-western part of Germany, was formally incorporated in the French empire (13th Dec. 1810), and became the capital of the newly created department of the Mouths of the Elbe. But at the beginning of the year 1813, the approach of Tettenborn obliged the French to fly (13th March). This encouraged Hamburg to re-establish its free constitution, which had been overthrown, and to prepare to take a part in the great struggle. More than 2000 men enlisted for military service; and they were to form a Hanseatic legion with the bands already raised by Lubeck, and those expected from Bremen. In addition to this, a guard of citizens was formed, at first of volunteers, and afterwards by a formal decree of the council and citizens. About 7000 men were enlisted for this purpose. In April, a part of the Hanseatic troops was able to take the field, and their cavalry distinguished itself at Ottersberg on the 22d. But the French, being reinforced, drove back the troops of the allies. They made themselves masters of the left bank of the Lower Elbe, and, May 12, took Wilhelmsburg (the castle of Harburg had voluntarily surrendered to them), and on the night of the 20th, they began to bombard the town. The hope of deliverance, awakened on the 21st, by the entrance of two Swedish battalions, vanished on the 25th, when the Swedes retreated. Misunderstandings arose between the military commanders and the senate, which sought for the mediation of the Danes. On the 29th, Tettenborn evacuated the city; and Von Hess, the commander of the guard of citizens, dismissed them. Before a capitulation had been signed, the Danes entered the city as allies of the French, and, on the evening of the 31st, Eckmuhl and Vandamme appeared with a large number of French troops. Partly to secure possession of the city, and partly to punish its resistance, the severest measures were taken. A contribution of 48,000,000 francs was levied upon the citizens, and a part of it was exacted immediately. At the end of the year, 40,000 persons, of every age and sex, had been driven from the city, and exposed to all the rigours of winter. At the same time, the dwellings of about 8000 persons, in the nearest environs of the city, were consumed by fire with such rapidity, that these poor people could only escape with their lives. As the troops which approached Hamburg, first under Wallmoden, and afterwards under Bennigsen, were too weak to undertake a siege, the city could not obtain deliverance from its oppressors, until after the end of the war in France. In the latter part of May (1814), the French troops first left the city, carrying with them the fruits of their exactions. A rent of 500,000 francs was the trifling compensation which France made to Hamburg, for its disastrous ravages within and without the city. The Russians, under Bennigsen, entered in the place of the French, and remained till the end of the year. Then first was the quiet of Hamburg restored.

HAMBURG MARC COURANT and BANCO. See *Coin*.

HAMBURG BANK. See *Bank*.

HAMILCAR. See *Hannibal*.

HAMILTON, a considerable town in the middle ward of Lanarkshire, eleven miles S. E. of Glasgow, and thirty-eight W. by S. of Edinburgh. The palace of Hamilton, the residence of the duke of that name, was originally in the middle of the town, which stood clustering around it; but the lower part being gradually purchased by the Hamilton family for the extension and improvement of their pleasure-grounds, the town has since stretched to the S. and W. and left the palace detached standing below. The origin of the town is uncertain, but it was erected into a burgh of barony in 1456. In 1548, it was erected by Queen Mary into a royal burgh; but the rights and privileges thus acquired from the crown were resigned into the hands of William, duke of Hamilton, after the reformation, who, in 1670, restored to the community its former privileges, and erected it into a burgh of regality, dependent on him and his successors, in which state it remained until the passing of the Scots burgh reform bill. Population of town and parish in 1831, 9513. It joins with Lithgow, Lanark, Falkirk, and Airdrie, in sending a member to parliament.

Hamilton has a number of resident gentry, and its proximity to the ducal establishment increases in some measure the prosperity of the town, though the residence of the family is chiefly abroad. The family has long been allied to the first nobility, and some of its branches have been connected with the blood-royal. Sir James, the sixth knight in descent from Sir Gilbert, the first of the family who settled in Scotland, having married for his second wife, Mary, eldest daughter of James II., by whom he had a son created earl of Arran; by lack of heirs in that line of the royal family, the son of this earl had only betwixt him and the throne, Mary, the daughter of James V., afterwards queen; this propinquity to royalty and the possession of the Scottish estate, created him regent during the minority of the young queen. The politics of the present family are liberal, and the brother of the present duke, lord Archibald, was long the redoubted champion of borough reform.

Hamilton palace was built at different periods; the finest and most important addition to it, from a design by Mr David Hamilton, being not yet completed. Several of the rooms are very large, particularly the gallery, which contains a collection of pictures, one of the best in Scotland. Of these, Daniel in the Lions' Den by Rubens, is one of the finest productions of that master. There is also a fine painting of lord Denbigh going a hunting, and the marriage feast, by Paul Veronese. In an adjoining closet is a marble statue of Venus Genitrix, dug from the ruins of Herculaneum. In the middle of the great park, and on a rock overhanging the W. bank of the Avon stand the ruins of Cadzow castle, the ancient manor-house, when the circumjacent district was known by the name of Cadzow. Opposite to these ruins, on the other side of the Avon, is a building, said to have been a representation of the castle of Chatelherault in Normandy, from which the family of Hamilton have the title of duke of Chatelherault in France. In the park are some of the stateliest oaks in Scotland.

HAMILTON, ANTHONY, COUNT; a poet, courtier and man of letters in the seventeenth century. He was descended from a younger branch of the family of the dukes of Hamilton, in Scotland, but was born in Ireland about 1646. His parents were Catholics and royalists, in consequence of which they removed to France, after the death of Charles I., and young Hamilton became domiciliated in that country. He, however, made frequent visits to England, in the reign of Charles II. His sister was married to count Grammont. It is said that the count, after having paid his addresses to the lady, and been accepted, changed his mind, and set off for the continent. Her brother followed him, and overtaking him at Dover, asked him if he had not forgotten something to be done, previously to his leaving England. "O, yes," replied Grammont, "I forgot to marry your sister." and he immediately returned and fulfilled his engagement. When James II. was obliged to contend for

his crown in Ireland, he gave count Hamilton a regiment of infantry, and made him governor of Limerick; but, on the ruin of the royal cause, he accompanied James to France, where he passed the rest of his life. His wit and talents secured him admission into the first circles, where he was generally esteemed for his agreeable manners and amiable disposition. He died at St Germain, in 1720. Count Hamilton is chiefly known as an author by his Memoirs of Count Grammont, a lively and spirited production, exhibiting a free, and, in the general outline, a faithful delineation of the voluptuous court of Charles II. The count's other works are Poems and Fairy Tales, which, as well as the Memoirs, are in French, and display elegance of style and fertility of invention.

HAMILTON, Elizabeth, a lady of considerable literary attainments, was born at Belfast, in Ireland, 25th July, 1758. Having become an orphan at an early age, she was brought up under the care of her uncle, who resided near Stirling, in Scotland, and, during her residence in his family, made herself intimately acquainted with those national peculiarities which she afterwards delineated so admirably in her Cottagers of Glenburnie. Besides this little work, which attracted much attention, she wrote the Letters of a Hindoo Rajah (2 vols. 8vo); the Life of Agrippina (3 vols. 8vo); and Memoirs of Modern Philosophers; works which, under the popular form of novels, are replete with sound sense and information. Her other writings are, Hints for Public Schools; Popular Essays (2 vols. 8vo); Rules of the Annuity Fund, &c.; Exercises in Religious Knowledge (12mo); Letters on the Formation of the Religious and Moral Principle (2 vols.); and On the Elementary Principles of Education. She was never married, but enjoyed an extensive acquaintance, especially among the talented of her own sex, one of whom, Miss Benger, after her decease, printed a selection from her correspondence, with a prefatory account of her life and habits. She died July 23, 1816.

HAMILTON, Gavin, a painter of considerable distinction in the last century, was descended from an ancient family in Scotland, and born in the town of Lanark. Being sent when very young to Rome, he became a scholar of the celebrated Augustine Massuchi, and there devoted himself during the remainder of his life, with the exception of occasional visits to Scotland, to historic painting. In some of his visits to his native country, he painted a few portraits, the best of which are considered to be two full lengths of the duke and duchess of Hamilton. He died in 1775 or 1776.

In his historical pictures, Mr Hamilton shows that he studied the chaste models of antiquity with more attention than the living figures around him; which has given his paintings of ancient histories that propriety with regard to costume, which distinguished them at the time from most modern compositions. One of his greatest works was his Homer, consisting of a series of pictures, representing scenes taken from the Iliad; these have been dispersed into various parts of Europe, and can now only be seen in one continued series in the excellent engravings made of them by Cunego, under the eye of Mr Hamilton himself. Several of these paintings came to Britain, but only three reached Scotland. One of these, the parting of Hector and Andromache, was in the possession of the duke of Hamilton. Another represents the death of Lucretia, in the collection of the earl of Hopetoun, and was deemed by all judges as a capital performance. The third was in the house of a Mrs Scott, in the neighbourhood of Edinburgh. It represents Achilles dragging the body of Hector round the walls of Troy. The figure of Achilles in this picture is painted with truth and spirit, and might stand the test of the severest criticism. It was in the grand and terrible Mr Hamilton chiefly excelled. His female characters had more of the dignity of Juno, or the coldness of Diana, than the soft inviting playfulness of the goddess of love. Perhaps the best collection of his paintings is to be found in a saloon in the villa Borghese, where the story of Paris is represented in different compartments.

Mr Hamilton published at Rome in 1773 a folio volume, entitled "Schola Picturæ Italiæ," or the "Italian School of Painting," composed of a number of fine engravings by Cunego, making part of the collection of Piraneisi; he there traces the different styles from Leonardo da Vinci, to the Carraccis; all the drawings were made by Mr Hamilton himself, and this admirable collection now forms one of the principal treasures in the first libraries in Europe. All his best pictures were likewise engraved under his own eye by artists of the first ability. From being profoundly acquainted with the history of the ancient state of Italy, he was enabled to bring to light many of the long buried treasures of antiquity, and to this noble object he devoted almost the whole of the latter part of his life. He was permitted by the government of the Roman states to open scavos in various places; at Centumcellæ, Velætri, Ostia, and above all at Tivoli, among the ruins of Adrian's villa; and it must be owned, that the success which crowned his researches made ample amends for the loss which painting may have suffered by the intermission of his practice and example. Many of the first collections in Germany and Russia are enriched by statues, busts, and bas relievos of his discovery. In the collection of the Museo Clementino, next to the treasures of Belvidere, the contributions of Hamilton were by far the most important. The Apollo, with six of the nine muses, were all of his finding. At the ruins of ancient Gabii, he was also very fortunate, particularly in the discovery of a Diana, a Germanicus, a Pan, and several rich columns of vert antique, and marmo fiorito. The paintings in fresco, preserved also by his great care and research, are admitted to surpass all others found in Italy.

HAMILTON, Robert, LL.D., a mathematician and political economist, was the son of a bookseller in Edinburgh, and born in June, 1743. While studying at the university of Edinburgh, he displayed great talents in mathematics, and in 1766, though then but a young man, he was prevailed on by his friends to offer himself as a candidate for the mathematical chair of Marischal college in Aberdeen, then vacant by the death of Mr Stewart. The application was unsuccessful, but he left behind him a very high sense of his abilities in the minds of the judges of the competition. After this Mr Hamilton became a partner in the conducting of a paper mill, which had been established by his father—a concern which, in 1769, he relinquished to the care of a manager, on his appointment to the rectorship of the academy at Perth. In 1771 he married Miss Anne Mitchell of Ladath, whom he had the misfortune of losing seven years afterwards. In 1779, the chair of natural philosophy in Marischal college, in the gift of the crown, was presented to Dr Hamilton. From this chair he effected an exchange with Dr Copland to the mathematical chair, as being better suited to his inclination and ability. A short time before this he had commenced the series of useful works which have so deservedly raised his name. In 1777, appeared the practical work, so well known by the name of "Hamilton's Merchandise." In 1796, he published his Arithmetic, a work which has been frequently reprinted,—in 1800, another work of a similar elementary description, called "Heads of a Course of

Mathematics," intended for the use of his own students: but the great work so generally attached to his name, did not appear till he had passed his seventieth year. The "Inquiry concerning the Rise and Progress, the Redemption and Present State of the National Debt of Great Britain," was published at Edinburgh in 1813. It created in every quarter, except that which might have best profited by the warning voice, a sudden consciousness of the folly of the system under which the national income was in many respects conducted; but it was not till his discoveries had made their silent progress through the medium of public opinion, that they began gradually to affect the measures of the government. The principal part of this inquiry, is devoted to the consideration of the measures which have at different periods been adopted for attempting the reduction of the national debt. The earliest attempt at a sinking fund was made in the year 1716, under the auspices of Sir Robt. Walpole, a measure of which that acute minister may not improbably have seen the inutility, as in the year 1733, he applied five millions of the then sinking fund to the public exigencies; the principal always nominally existed, although it was not maintained with constant regularity and zeal, until the year 1786, when the celebrated sinking fund of Mr Pitt was formed, by the disposal of part of the income of the nation to commissioners for the redemption of the debt, a measure which was modified in 1792, by the assignment of one per cent. annually, on the nominal capital of each loan contracted during the war, as a sinking fund appropriated for the redemption of the particular loan to which it was attached. It underwent several other modifications, particularly in 1802 and 1807. The great prophet and propounder of this system, the celebrated Dr Price, unfolded his views on the subject, in his treatise "Of Reversionary Annuities," published in 1771. The practical results of Dr Price's theories were, the proposal of a plan, by which a nation might borrow at simple interest, and accumulate at compound interest a fund for its repayment: boldly pushing his theory to its extremities, and maintaining that it is better to borrow at high than at low interest, because the debt will be more speedily repaid; and as a corollary, that a sinking fund during war is more efficient than at any other time, and that to terminate it *then*, is "the madness of giving it a mortal blow." The supposition maintained by Dr Hamilton, in opposition to these golden visions of eternal borrowing for the purpose of increasing national riches was, that if a person borrows money, and assigns a part of it to accumulate at compound interest for the repayment of the whole, he is just in the same situation as if he had deducted that part from his loan—and hence the general scope of his argument goes to prove the utter uselessness of a borrowed sinking fund, and the fallacy of continuing its operation during war, or when the expenditure of the nation overbalances the income. The sinking fund was strictly a borrowed one, in as far as money was laid aside for it, while the nation was obliged to borrow for the support of its expenditure. The evil of the system was found by Dr Hamilton to consist, not only in the fallacy it imposes on the public, but in its positive loss of resources. The loans were raised at a rate more disadvantageous to the borrower than that at which the creditor afterwards received payment of them, and the management of the system was expensive; if a man who is in debt borrows merely for the purpose of paying his debt, and transacts the business himself, he merely exposes himself to more trouble than he would have encountered by continuing debtor to his former creditor; if he employ an agent to transact the business, he is a loser by the amount of fees paid to that agent. These truths Dr Hamilton was not content with proving argumentatively—he coupled them with a minute history of the various financial proceedings of the country, and tables of practical calculation, shewing the exact sums which the government has at different periods misapplied. Along with Mr Pitt's system of finance, he gave an account of that of lord Henry Petty, established in 1807; a complicated scheme, the operation of which seems not to have been perceived by its inventor, and which, had it continued for any length of time, might have produced effects more ruinous than those of any system which has been devised. The summary of his proofs and discussion on the subject, as expressed in his own words, was as follows: "The excess of revenue above expenditure is the only real sinking fund by which the public debt can be discharged. The increase of the revenue, or the diminution of expense, are the only means by which a sinking fund can be enlarged, and its operations rendered more effectual; and all schemes for discharging the national debt, by sinking funds operating by compound interest, or in any other manner, unless so far as they are founded upon this principle, are illusory." The discovery made by Dr Hamilton was one of those few triumphant achievements, which, founded on the indisputable ground of practical calculation, can never be controverted or doubted: and although a few individuals, from a love of system, while apparently admitting the truths demonstrated by Dr Hamilton, in attempting to vindicate the system on separate grounds, have fallen, *mutato nomine*, in the same fallacy. The Edinburgh reviewers, Ricardo, Say, and all the eminent political economists of the age, have supported his doctrine; while the late lord Grenville—a member of the administration which devised the sinking fund, and for some time first lord of the treasury—in a pamphlet, which is a striking and noble specimen of political candour, admitted that the treatise of Dr Hamilton opened his eyes to the fallacy of his once favourite measure.

In 1825, Dr Hamilton's declining years were saddened by the death of his second wife, whom he had married in 1782; and on the 14th day of July, 1829, he died in the bosom of his family, and in that retirement which his unobtrusive mind always courted, and which he had never for any considerable period relinquished. Several essays were found among his papers, which were published by his friends in 1830, under the title of "The Progress of Society:" it is probable that the author might have intended to have infused through them a connecting spirit, which might have formed them into a general treatise on most subjects connected with political economy; they however appeared in a disconnected state, and although the majority of them contain very deep and abstruse remarks well worthy of attention, there are others which may, perhaps, be said to contain too little of the close and practical reasoning which generally distinguishes their author's mind.

HAMILTON, WILLIAM, a poet of the last century, usually called Hamilton of Bangour, from the place of his birth, Bangour, in Ayrshire, was born in 1704. At the commencement of the insurrection of 1745, he joined the standard of Prince Charles, and was present at the battle of Culloden, after which he became an exile from his native country, but was at length pardoned. He died in France in 1754. His poems, which were first published at Glasgow in 1748, and afterwards reprinted several times, display liveliness of imagination and delicacy of sentiment. The well known ballad of the "Braes of Yarrow" is by this author. Hamilton of Bangour

must not be confounded with Hamilton of Gilbertfield in Lanarkshire, the friend and correspondent of Allan Ramsay, and the modernizer of Blind Harry's poem of Wallace.

HAMILTON, Sir WILLIAM, K. B., was born in Scotland, in 1730. His mother having been nurse to George III., that prince, before his accession to the throne, extended his patronage to young Hamilton, and made him his equerry. In 1764, he received the appointment of ambassador to the court of Naples, where he resided thirty-six years, returning to England in 1800. A considerable part of this term being a season of political repose, he devoted his leisure to science, making observations on Vesuvius, Ætna, and other volcanic mountains of the Mediterranean; and the result of his researches is detailed in the Philosophical Transactions, and in his *Campi Phlegræi*, or Observations on the Volcanoes of the Two Sicilies (2 vols. folio). His communications to the royal society were also republished, with notes, in 1772 (8vo). He drew up an account of the discoveries made in Pompeii, printed in the fourth volume of the *Archæologia*, and collected a cabinet of antiquities, of which an account was published by D'Hancarville. The French revolution gave rise to a treaty of alliance between his Britannic majesty and the king of the Two Sicilies, which was signed by Sir William Hamilton, July 12, 1793. By this treaty, the Neapolitans engaged to furnish 6000 troops, four ships of the line, &c., for war against France in the Mediterranean; but Ferdinand IV. made peace with the French republic in 1796, without having taken any active part in the contest. On this occasion, and in the subsequent events of 1798 and 1799, when the court emigrated to Sicily, Sir William appears to have acted but a secondary part as a political agent, and he was recalled not long after. He died in London, April 6, 1803. After his death, his collection of antique vases was purchased by parliament for the British museum.

HAMILTON, LADY (before her marriage, Emma Lyon or Harte). According to the memoirs which appeared under her name in 1815, her mother was a poor servant woman, who, with her child in her arms, wandered back, in the year 1761, from the county of Chester, to her home in Wales. Her memoirs say, that she went into service as a children's maid at the age of thirteen. At sixteen, she went to London, and served a shop-keeper, and soon after became chambermaid to a lady of rank. The leisure which she here enjoyed, she devoted to novel reading. She soon acquired a taste for the drama. She studied the attitudes and motions of the actors, and exercised herself in representing by attitudes and gestures the different passions. She thus laid the foundation of her extraordinary skill in pantomimic representations. Her attention to these studies caused her to lose her place, and she became a maid servant in a tavern, frequented by actors, musicians, painters, &c. According to her own memoirs, she retained her virtue in the midst of this scene of licentiousness, and the subsequent sacrifice of it she represents as an act of generosity. A countryman and relation of hers had been pressed upon the Thames. To obtain his release, she hastened to the captain; she pleased him, and her request was granted. The captain loaded her with presents, and she had her natural capacity improved by instruction. She then found a new admirer, who, with the consent of her former lover, took her to his country seat. But at the close of the summer, disgusted by her extravagance, and induced by domestic considerations, he dismissed her. Again thrown helpless upon the world, she wandered through the streets of London, in the lowest stage of degradation. She then met with a quack doctor, who made her his goddess *Hygeia*, and exhibited her as such, wrapped in a light veil. Painters, sculptors, and others, paid their tribute of admiration at the shrine of this new goddess, and among them the celebrated painter Romney, who fell in love with her. With him she practised all the reserve of modesty and virtue. But she ensnared Charles Greville, of the family of Warwick, who had three children by her, and was on the point of marrying her, when he was suddenly disgraced, in 1789, and deprived of all his offices. Unable to support her any longer, he sent her to Naples, where his uncle, Sir William Hamilton, was ambassador. Sir William was so charmed with her, that he made an agreement with Greville, to pay his debts, on condition that he would give up his mistress. She now behaved with more decorum; she supplied, as far as possible, all the deficiencies in her education, and soon became remarkable for her social talents. Artists of all kinds, who had access to Sir William Hamilton's house, began to pay their court to her, and she displayed before them her skill in attitudes. A piece of cloth was all she needed to appear as a daughter of Levi, as a Roman matron, or as an Helen or an Aspasia. It was she who invented the seducing shawl dance. Hamilton, who became each day more and more enamoured of her beauty, at last determined to marry her; and their nuptials were celebrated in London, in 1791. Soon after his return to Naples, he presented her at court, and she soon took an active part in the festivals of the queen. She was the only witness of the secret suppers of the queen and Acton, and often slept in the chamber of her royal friend. This favour, and her haughtiness, displeased the ladies of the court, who could not conceal their jealousy; some of them were, on that account, treated as criminals of state. At that time began her acquaintance with Nelson, who soon became intimate with the ambassador and his wife. Through them the British government received information, that the king of Spain had determined to declare war. After the victory of Aboukir, Nelson was received in Naples with extravagant rejoicings. Lady Hamilton was the heroine of the crowd, to whom Nelson appeared as a liberating deity. Several months passed in festivities, until the advance of the French obliged the royal family, in December, 1798, to escape, with Nelson's assistance, to Sicily. Some months after, Italy was delivered by the victories of the Austrians and the Russians, and Nelson's fleet returned to the bay of Naples. Lady Hamilton accompanied the slave of her charms; and it is asserted, that the violent measures then used, contrary to the capitulation, were partly intended as acts of vengeance upon her personal enemies. When the court returned to Naples, in 1800, things were replaced upon their former footing, and remained so till the British cabinet recalled Sir William Hamilton. Nelson resigned his command at the same time, and appeared in London with the lady and the ambassador. But the intimacy between Nelson and lady Hamilton here attracted general disapprobation. She was delivered of a daughter, which bore the name of Nelson. Soon after, Sir William died, and his widow retired to Merton place, a country seat which Nelson had bought for her. Abandoned to herself after his death, in 1805, she again gave herself up to her corrupt inclinations, and was soon reduced to poverty. Limited to a small pension, she left England, took her daughter with her, and hired a house in the country, near Calais, where she died, in 1815. Lady Hamilton was without education, but full of art. To her beauty, and her skill in heightening its effect by the voluptuous attitudes of the dancing girl, she owed her fame and her good fortune. In violation of all sensibility and decency, she sold or published

the secret letters of Nelson to her, and thus threw a stain upon the memory of this hero.

HAMILTON, William Gerard; a statesman and parliamentary orator of the last century, who, on account of the extraordinary impression produced by the first and almost the only speech he ever delivered in the British house of commons, obtained the appellation of *Single Speech Hamilton*. He was born in 1729. In 1754, he obtained a seat in parliament, when he made his memorable speech; and he was subsequently made one of the lords of trade and plantations. On the appointment of lord Halifax to the vice-royalty of Ireland, Hamilton went thither as his secretary, and was accompanied by the celebrated Edmund Burke as his own secretary. In the Irish parliament, he supported the reputation he had previously gained as an orator, and for many years held the office of chancellor of the exchequer in that kingdom. He relinquished that post in 1784, and spent the latter part of his life in literary retirement. His death took place in 1796. The letters of Junius have also been attributed to this gentleman. His works were published in 1808.

HAMILTON, Alexander, a distinguished American officer and legislator, during the contest for independence, was born in 1757, in the island of Nevis. His father was a native of England, and his mother of the island. At the age of sixteen, he became a student of Columbia college, his mother having emigrated to New York. He had not been in that institution more than a year, before he gave a brilliant manifestation of the powers of his mind in the discussion concerning the rights of the colonies. In support of these he published several essays, which were marked by such vigour and maturity of style, strength of argument, and wisdom and compass of views, that Mr Jay, at that time in the meridian of life, was supposed, at first, to be the author. When it had become necessary to unsheath the sword, the ardent spirit of young Hamilton would no longer allow him to remain in academic retirement; and before the age of nineteen, he entered the American army, with the rank of captain of artillery. In this capacity, he soon attracted the attention of the commander-in-chief, who appointed him his aid-de-camp, with the rank of lieutenant-colonel. This occurred in 1777, when he was not more than twenty years of age. From this time, he continued the inseparable companion of Washington during the war, and was always consulted by him, and frequently by other eminent public functionaries, on the most important occasions. He acted as his first aid-de-camp at the battles of Brandywine, Germantown, and Monmouth, and, at the siege of Yorktown, he led, at his own request, the detachment that carried by assault one of the enemy's outworks, October 14, 1781. In this affair, he displayed the most brilliant valour. After the war, colonel Hamilton, then about twenty-four, commenced the study of the law, as he had at that time a wife and family depending upon him for support. He was soon admitted to the bar. In 1782, he was chosen a member of congress from the state of New York, where he quickly acquired the greatest influence and distinction, and was always a member and sometimes chairman of those committees to which were confided such subjects as were deemed of vital interest to the nation. The reports which he prepared are remarkable for the correctness and power which characterize every effort of his pen. At the end of the session, he returned to the practice of his profession in the city of New York, and became eminent at the bar. In 1786, he was chosen a member of the legislature of his state, and was mainly instrumental in preventing a serious collision between Vermont and New York, in consequence of a dispute concerning territorial jurisdiction. He was elected a delegate of New York to the convention which was to meet at Philadelphia, in order to form a constitution for the United States. Hamilton and Madison were the chief oracles and artificers of the constitution. After its adoption by the convention, he associated himself with Mr Madison and Mr Jay, for the purpose of disposing the public to receive it with favour. The essays which they wrote with that design, addressed to the people of New York, during the years 1787 and 1788, under the name of the *Federalist*, contributed powerfully to produce the effect for which they were composed. The larger portion of them was written by Hamilton. In 1788, he was a member of the state convention of New York, which met to deliberate on the adoption of the federal constitution, and it was chiefly in consequence of his efforts that it was accepted. On the organisation of the federal government, in 1789, he was appointed to the office of secretary of the treasury. This was a situation which required the exercise of all the great powers of his mind; for the public credit was, at that time, in the lowest state of depression; and as no statistical account of the country had ever been attempted, its fiscal resources were wholly unknown. But before Hamilton retired from the post, which he did after filling it during somewhat more than five years, he had raised the public credit to a height altogether unprecedented in the history of the country, and, by the admirable system of finance which he established, had acquired the reputation of one of the greatest financiers of the age. His official reports to congress are considered as masterpieces, and the principles which he advocated in them still continue to exercise a great influence in the revenue department of the American government. Whilst secretary of the treasury, he was, *ex officio*, one of the cabinet councillors of president Washington; and such was the confidence reposed by that great man in his integrity and ability, that he rarely ventured upon any executive act of moment without his concurrence. He was one of the principal advisers of the proclamation of neutrality issued by Washington in 1793, in consequence of an attempt made by the minister of France to cause the United States to take part with his country in the war then waging between it and England. This measure he defended in a series of essays, under the signature of *Pacificus*, which were successful in giving it popularity. In 1795, Hamilton resigned his office, and retired to private life, in order to be better able to support a numerous family by the practice of his profession. In 1798, however, when an invasion was apprehended from the French, and a provisional army had been called into the field, his public services were again required. President Adams had offered the chief command of the provisional army to Washington, who consented to accept it on condition that Hamilton should be chosen second in command, with the title of inspector-general. This was accordingly done; and, in a short time, he succeeded in bringing the organisation and discipline of the army to a high degree of excellence. On the death of Washington, in 1799, he succeeded, of course, to the chief command. The title of lieutenant-general, however, to which he was then entitled, was, from some unexplained cause, never conferred on him. When the army was disbanded, after the cessation of hostilities between the United States and France, general Hamilton returned again to the bar, and continued to practise, with increased reputation and success, until 1804. In June of that year, he received a note from colonel Burr,—between whom and himself a political feud had become a personal enmity,—in which he was required, in offensive language, to acknowledge or dis-

avow certain expressions derogatory to the latter. The tone of the note was such as to cause him to refuse to do either, and a challenge was the consequence. July 11, the parties met at Hoboken, and on the first fire Hamilton fell, mortally wounded, on the same spot where, a short time previously, his eldest son had been killed in a duel. He lingered until the afternoon of the following day, when he expired. The sensation which this occurrence produced throughout the United States, was great. Of all the coadjutors and advisers of Washington, Hamilton was, doubtless, the one in whose judgment and sagacity he reposed the greatest confidence, whether in the military or civil career; and, of all the American statesmen, he displayed the most comprehensive understanding and the most varied ability, whether applied to subjects practical or speculative. A collection of his works was issued in New York, in three octavo volumes, some years after his death. His style is nervous, lucid, and elevated; he excels in reasoning, founded on general principles and historical experience. General Hamilton was regarded as the head of the federalists in the party divisions of the American republic.

HAMMER; a well-known tool used by mechanics, of which there are various sorts; but they all consist of an iron head fixed crosswise to a handle of wood. Among blacksmiths, there are the hand-hammer, the upland sledge, the about sledge (which is swung over head with both arms), &c.

HAMMER, in German geographical names, means *forge*.

HAMMERSMITH. See *Middlesex*.

HAMMOCK, in naval affairs; a piece of hempen cloth, six feet long and three feet wide, gathered together at the two ends by means of a clew, and slung horizontally under the deck, forming a receptacle for a bed. There are about from fourteen to twenty inches in breadth allowed between the decks for every hammock in a ship of war. In preparing for battle, the hammocks, with their contents, are all firmly corded, taken upon deck, and fixed in various settings, so as to form a barricade against small shot.

HAMMOND, James, an English elegiac poet, was born in 1710, and received his education at Westminster school, where he formed an intimacy with lords Cobham, Chesterfield, and Lyttelton, and others afterwards distinguished in literature. He was appointed equerry to Frederic, prince of Wales; and, in 1741, was chosen member of parliament for Truro. He died the following year, his health, if not his intellect, having been disordered by an unfortunate attachment to a young lady who rejected his addresses. After his death, a small volume of his Love Elegies was published, with a preface by lord Chesterfield. They are chiefly imitations of Tibullus, and display a cultivated taste and warm imagination.

HAMPDEN, John, celebrated for his patriotic opposition to taxation by prerogative, was born in London, in 1594, and, at an early age, was entered a gentleman commoner at Magdalen college, Oxford. On leaving the university, he took chambers in one of the inns of court, in order to study law; but the death of his father putting him in possession of an ample estate, he indulged in the usual career of country gentlemen, until the aspect of the times, and the natural weight of his connexions and character, produced greater strictness of conduct, without any abatement of his cheerfulness and affability. He was cousin-german, by the mother's side, to Oliver Cromwell. He entered parliament in 1626; and, although for some years a uniform opposer of the arbitrary practices in church and state, and one of those who, in 1637, had engaged a ship to carry them to New England, he acted no very distinguished part. Hume sneers at the motives of this intended emigration, as merely Puritanical; but the conduct of Hampden in regard to the demand for ship-money, which immediately followed the prohibition to depart the kingdom, forms a conclusive answer to this insinuation. His resistance to that illegal impost (to use the language of lord Clarendon) made him the argument of all tongues, especially as it was after the decision of the judges in favour of the king's right to levy ship-money, that Hampden refused to pay it. Being prosecuted in the court of exchequer, he himself, aided by counsel, argued the case against the crown lawyers for twelve days, before the twelve judges; and, although it was decided against him by eight of them to four, the victory, as far as regarded public opinion, was his. From this time, he received the title of the *patriot Hampden*; and his temper and his modesty on this great occasion acquired him as much credit as his courage and perseverance. Henceforward he took a prominent part in the great contest between the crown and the parliament, and was one of the five members whom the king so imprudently attempted, in person, to seize in the house of commons. When the appeal was made to the sword, Hampden acted with his usual decision, by accepting the command of a regiment in the parliamentary army, under the earl of Essex. Prince Rupert having beaten up the quarters of the parliamentary troops, near Thame, in Oxfordshire, Hampden eagerly joined a few cavalry that were rallied in haste, and, in the skirmish that ensued, received a wound which proved fatal six days after its infliction, on the 24th June, 1643. It is said that the king testified his respect for him by sending his own physician to attend him. His death was a great subject of rejoicing to the royal party, and of grief to his own. That the joy of the former was misplaced, there is now much reason to believe, as he would probably have proved a powerful check upon the unprincipled ambition of his relative, Oliver. Clarendon sums up an elaborate character of this eminent leader, by declaring that, like Catiline, "He had a head to contrive, a tongue to persuade, and a hand to execute, any mischief." But his character and conduct, from first to last, evince his conscientiousness, and he has taken his rank by acclamation on the one side, and tacitly on the other, high in the list of English patriots.

HAMPDEN SIDNEY COLLEGE; a college in Prince Edward county, Virginia, eighty miles S. W. of Richmond, and central to the southern section of the state. It was founded in 1775. The corporation consists of twenty-seven men, most of whom are graduates from other colleges. The president of the college is the professor of mental philosophy, rhetoric, moral philosophy, and natural law. There is a professor of chemistry and natural philosophy, one of mathematics, and one of the learned languages.—There are two college buildings, which are very commodious. The number of undergraduates is about one hundred. There are four libraries belonging to the institution and the students, comprising more than 2000 volumes. The college year has two sessions. There is no town or village in the vicinity of the college. The Union Theological seminary, a Presbyterian institution, established in 1824, is situated near the college, and contained, in 1830, thirty-five students.

HAMPSHIRE, HANTS, or SOUTHAMPTONSHIRE; one of the southern counties of England, on the English channel, including, also, the Isle of Wight, and, in some points of jurisdiction, the more distant islands of Jersey and Guernsey. This county is considered as one of the most agreeable and fertile in the kingdom; and it has, from the earliest time, supported a numerous population. The surface

is pleasantly diversified with gently-rising hills and fruitful valleys, adorned with numerous seats and villages, interspersed with extensive woodlands. About one-half of the surface is devoted to pasturage; about one-half arable; and the remainder is occupied with extensive forests and tracts of open heath. In those parts which border on Surrey, the land is principally appropriated to the growth of hops, the plantations of which have been largely extended of late years. Wheat, barley, peas, oats, rye, grass, and trefoil, are also raised in considerable quantities. Besides the products already noticed, Hampshire is famous for its wool, bacon, honey, and timber. Exclusive of the New Forest, occupying almost the whole of its south-west angle, this county contains the Forest of Bere towards the south-east, and the woods or forests of Alice, Holt, and Woolmar; the former extending northward from the Portsdown hills, and the latter situated on the borders of Surrey and Sussex. This county is watered by several rivers, some of which rising in the north-east soon leave the county in their course towards the Thames; but the greater cross it from north to south, and fall into the English Channel. The Upper Avon, from Wiltshire, flows near the edge of the New Forest, and passing Fording-bridge and Ringwood, enters the sea at Christ-church Bay. The Test, or Tese, rises in the north-western part of Hampshire, and passing Stockbridge and Romsey, falls into Southampton Bay. The Itchin has its source near the centre of the county, and washing the city of Winchester, empties itself into the bay just mentioned; and which also receives another small river below Titchfield. Besides these may be mentioned the Boldre-water, the Exe, the Anton, and the Hamble. In tracing the sea-coast from east to west, we find several important bays and inlets, the first of which includes Portsea Island, on which is the town of Portsmouth; and opposite to it, on the mainland, is Gosport, situated on the peninsula, which terminates in the point called Spithead. Hence commences that arm of the sea, stretching to the north-west, named Trisanton Bay, or Southampton Water, navigable almost to its head, for vessels of considerable burden. Further westward are the bays of Lymington and Christchurch. The principal manufactures of this county are broad cloth, shalloon, serge, kerseys, and other coarse woollens; malt, large quantities of which are made at Andover; and sea-salt, prepared at Lymington. Sea-fish is plentiful, and lobsters and other marine crustacea are taken off the coasts; and the rivers produce excellent trout. The only city of the county, is Winchester; the boroughs are Southampton, Portsmouth, Petersfield, Yarmouth, Newport, Newtown, Stockbridge, Andover, Whitchurch, Lymington, and Christchurch; and the market towns, Alresford, Alton, Basingstoke, Brading, Cowes, Fareham, Fordingbridge, Gosport, Havant, Odiham, Ringwood, Romsey, Ryde, and Bishop's Waltham. Population in 1831, 314,313.

HAMPSHIRE, New, See *New Hampshire*.

HAMPSTEAD; a populous village in Middlesex, four miles N. W. of London. It is situated on the declivity of a high hill, from which there is one of the best and most charming prospects of the metropolis and the adjacent counties. According to tradition, this was formerly a hunting seat of James II. Population of the parish, 8588. This place is much resorted to in summer, by the inhabitants of London.

HAMPTON, a village of Middlesex, situated twelve miles S. W. of London. Population of parish in 1831, 3992. About a mile from the village is the royal palace of Hampton Court. It was erected by cardinal Wolsey, who lived here magnificently. The palace was said to be provided with 280 beds for visitors of rank. Wolsey presented it to Henry VIII., in 1526, after which it was much resorted to by the English kings and queens, until lately. The palace and appurtenances are very spacious, and are described at length in the various Guides of London. Much of the celebrity of Hampton Court is owing to the gallery of paintings, in which the famous cartoons of Raphael are preserved. They are called by way of excellence, *the cartoons*. They are part of a series of designs made for tapestry, and were purchased by Charles I. They are deservedly reckoned among the finest of Raphael's works, and consequently among the finest works of art. Richardson has given an accurate, historical, and critical description of them; and, in his opinion, they are more fitted to convey a true idea of the genius of Raphael, than even the *loggie* of the Vatican. The tapestries that have been wrought from them are but shadows of the originals, yet are preserved with great veneration at Rome, and only shown on a few days of the year, in the gallery which leads from St Peter's to the Vatican, and never fail to attract an immense crowd. Towards the end of the year 1815 the French government exhibited in the Salon du *Musée*, several tapestries worked at Brussels, which were said to have been executed after the designs of Raphael. The cartoons at Hampton Court have been several times engraved, first by Gribelin, in queen Anne's reign, next by Dorigny, and since that by several inferior artists, most probably from the other engravings. They have also been engraved lately, of a small size, by Fittler, and of a very large size, and in a splendid and superior manner, by Holloway. One of the most admired of these cartoons is St Paul preaching at Athens. For more information respecting them, and the other valuable pictures at Hampton Court, see Hazlitt's *British Galleries of Art* (London, 1824).

HANAPER; an office in chancery, under the direction of a master, whose deputy and clerks answer, in some measure, to the *fiscal* among the Romans. The clerk of the hanaper receives the fines due to the king for seals of charters, patents, commissions, and writs. He attends, also, the keeper of the seal daily, in term, and at all times of sealing, and takes into his custody all sealed charters, patents, &c.

HANAU, a province of Hesse-Cassel, in the Wetteravia, constituted, from 1809 to 1813, part of the grand duchy of Frankfort. It contains 572 square miles, with 88,100 inhabitants, mostly Protestants, who formed a religious union in 1818. The capital is Hanau, on the Kinsig; lat. 50° 51' N.; lon. 8° 51' E.; with 1479 houses and 9700 inhabitants, famous for the battle fought here, October 30, 1813, between the Bavarian general Wrede and Napoleon on the retreat from Leipsic. The victory was, at first, decidedly for the French; but the allies gained the advantage, because they had seriously embarrassed the retreat of Napoleon. Military writers have reproached general Wrede for his bad tactics. He was himself severely wounded. The allies did not advance before November 2, and therefore could not have gained any great advantage. It is said that the French lost 15,000 killed and wounded and 10,000 prisoners, in the combats in and near Hanau.

HANCOCK, John, an American patriot during the war of independence, was born at Quincy, near Boston, and was the son and grandson of eminent clergymen, but, having early lost his father, was indebted for his liberal education to his uncle, a merchant of great wealth and respectability, who sent him to Harvard university, where he was graduated

in 1754. He was then placed in the counting-house of his benefactor, and not long afterwards visited England, where he was present at the coronation of George III., as little prescient as the monarch himself of the part which he was destined to act in relation to the British government. On the sudden demise of his uncle, in 1764, he succeeded to his large fortune and extensive business; both of which he managed with great judgment and munificence. As a member of the provincial legislature, he exerted himself with zeal and resolution against the royal governor and the British ministry, and became so obnoxious to them, in consequence, that in the proclamation issued by general Gage, after the battle of Lexington, and a few days before that of Bunker hill, offering pardon to the rebels, he and Samuel Adams were especially excepted, their offences being "of too flagitious a nature to admit of any other consideration than that of condign punishment." This circumstance gave additional celebrity to these two patriots, between whom, however, an unfortunate dissension took place, which produced a temporary schism in the party they headed, and a long personal estrangement between themselves. In fact, they differed so widely in their modes of living and general dispositions, that their concurrence in political measures may be considered one of the strongest proofs of their patriotism. Hancock was a magnificent liver, lavishly bountiful, and splendidly hospitable; Samuel Adams had neither the means nor the inclination for pursuing a similar course. He was studiously simple and frugal, and was of an austere, unbending character. Hancock was president of the provincial congress of Massachusetts, until he was sent as a delegate from the province to the general congress at Philadelphia, in 1775. Soon after his arrival there, he was chosen to succeed Peyton Randolph as president of that assembly, and was the first to affix his signature to the declaration of independence. He continued to fill the chair until the year 1779, when he was compelled by disease to retire from congress. He then was elected governor of Massachusetts, and was annually chosen from 1780 to 1785. After an interval of two years, during which Mr Bowdoin occupied the post, he was re-elected, and continued in the office until his death, Oct. 8, 1793, at the age of fifty-six years. In the interval, he acted as president of the convention of the state for the adoption of the federal constitution, for which he finally voted. (An able sketch of his character is contained in Tudor's Life of Otis.) The talents of Hancock were rather useful than brilliant. He seldom spoke, but his knowledge of business, and facility in despatching it, together with his keen insight into the characters of men, rendered him peculiarly fit for public life. As the president of a deliberative assembly, he excelled. His voice was sonorous, his apprehension of questions quick; he was well acquainted with parliamentary forms, and he inspired respect and confidence by his attention, impartiality, and dignity. In private life, he was eminent for his hospitality and beneficence. He was a complete gentleman of the old school, both in his appearance and manners; dressing richly, according to the fashion of the day, keeping a handsome equipage, and being distinguished for politeness and affability in social intercourse. When Washington consulted the legislature of Massachusetts upon the propriety of bombarding Boston, Hancock advised its being done immediately, if it would benefit the cause, though nearly his whole property consisted in houses and other real estate in that town.

HAND; a measure of four inches, or of the clenched fist. In painting and sculpture, it signifies also the style of the artist. Hands are borne in coats of armour, right and left, expanded or open; and a bloody hand in the centre of an escutcheon, is the badge of a baronet of Great Britain.

HANDBREADTH; a measure of three inches.

HANDCUFFS; an instrument formed of two circular pieces of iron, each fixed on a hinge on the ends of a very short iron bar, which, being locked over the wrists of a malefactor, prevents his using his hands.

HANDEL, properly HAENDEL, George Frederic. This celebrated composer was a native of Halle, in the duchy of Magdeburg, in Lower Saxony, where his father practised with considerable reputation as a physician and surgeon. He was born Feb. 24, 1684. His father, intending him for the law, discouraged, as much as possible, the strong passion which he evinced early in life for the science of music. But, although he was forbidden the use of musical instruments, the young musician contrived to hide a small clavichord in a garret, where he amused himself during great part of the night after the rest of the family had retired, and made such progress that, on paying a visit to the court of Saxe-Weissenfels, where his brother held a subordinate situation in the household, he played on the church organ with such power and effect, that the duke, who accidentally witnessed his performance, used his influence successfully with his father, to permit him to follow his inclination. He was accordingly placed under the tuition of Zachau, organist of the cathedral, and at the age of nine was so far advanced in the practical part of the science, as to be able to officiate occasionally as deputy to his instructer, while his theoretical proficiency enabled him to compose a service, or spiritual cantata, weekly, for nearly three years. On the death of his father in 1703, he repaired to Hamburg, then celebrated for the excellence of its musical performances, and procured an engagement in the orchestra at the opera there. At this period of his life, he commenced an acquaintance with Matheson the composer, which, though untoward in its commencement, ripened into a strict friendship. A breach of etiquette during the performance of the latter's opera of Cleopatra, on the 4th of December, 1704, produced a quarrel between the young men, which terminated in a duel. Fortunately, Matheson's sword broke against one of Handel's buttons, which ended the encounter, and a reconciliation took place. On the 30th of the same month, Handel brought out his first opera, Almira, which, in the February following, was succeeded by his Nero, Matheson performing the principal character in each. Having at length saved 200 ducats,—enough to warrant him in making a journey to Italy,—he proceeded in succession to Florence, Venice, Naples and Rome; in which latter capital he formed an acquaintance with Corelli, at the house of cardinal Ottoboni. On his return to Germany, in 1710, he entered the service of the elector of Hanover, afterwards George I. of England, as chapel-master; but, having received pressing invitations from several of the British nobility to visit London, he, with the permission of that prince, set out for England, where he arrived in the latter end of 1710. The flattering reception which he met with in that country, induced him to break his continental engagement, in violation of a positive promise which he had given to return within a specified time; and he was, in consequence, on the accession of his royal patron to the throne of Great Britain, in much disgrace, till the good offices of baron Kilmansegge restored him to favour, and the pension of £200, granted him by queen Anne, was doubled. From 1715 to 1718, Handel resided with the earl of Burlington, and then quitted that nobleman for the service of the duke of Chandos, who entertained him as *maestro di capella* to

the splendid choir which he had established at his seat at Cannons. For the service of this magnificent chapel, Handel produced those anthems and organ fugues, which alone would have been sufficient to immortalise him. After two years dedicated to this munificent patron, the royal academy of music was instituted; and this great composer, whose fame had now reached its height, was placed at its head; and this, for a short period, may be considered as the most splendid era of music in England. The warmth of his own temper, however, excited by the arrogance and caprice of Carestini, Cuzzoni, and others of his principal Italian singers, gave birth to many violent quarrels; and, public opinion becoming to a certain extent enlisted in favour of his opponents, his popularity began to wane, and, after ten years' duration, the operas under his direction were abandoned. In 1741, he brought out his *chef-d'œuvre*, the oratorio of the Messiah. This sublime composition was not, however, duly appreciated at its first representation —a circumstance which may be accounted for by the offence which its author had just given, in refusing to compose for Senesino, who had insulted him. Disgusted at its reception, Handel set out for Ireland towards the close of the same year, where it was much more successful; and when, after an absence of nine months, which had turned out most profitably both to his purse and fame, he returned to London, the hostility against him had much abated, and his oratorios were constantly received at Covent-garden theatre, with the greatest approbation, by overflowing audiences: the Messiah, in particular, increased yearly in reputation. Some time previously to his decease, he was afflicted by total blindness; but this misfortune had little effect on his spirits, and he continued not only to perform in public, but even to compose. His own air, however, from the oratorio of Sampson, Total Eclipse, is said always to have affected and agitated him extremely after this melancholy privation. April 6, 1759, he was, as usual, at his post in the orchestra; but expired, after a very short illness, on the 13th of the same month.

Handel's habits of life were regular; and although, in his contests with the nobility, he lost at one time the whole of his savings, amounting to £10,000, yet he afterwards recovered himself, and left £10,000 at his decease. His appetites were coarse, his person large and ungainly, his manners rough, and his temper even violent; but his heart was humane, and his disposition liberal. His early and assiduous attention to his profession prevented him from acquiring much literary information, but he spoke several modern languages. His musical powers can hardly be estimated too highly. In boldness and strength of style, and in the combination of vigour, spirit, and invention in his instrumental compositions, he was never surpassed. His choruses have a grandeur and sublimity which have never been equalled. A very honourable national tribute of applause was given to Handel in 1785, by a musical commemoration at Westminster abbey, in which pieces selected exclusively from his works were performed by a band of 500 instruments, in the presence of the royal family, and the principal nobility and gentry of the three kingdoms. This great composer never married; he was buried in Westminster abbey, where a monument by Roubilliac is erected to his memory.

HANDSPIKE; a wooden bar or lever to heave round the windlass, in order to raise the anchor from the bottom; or for stowing the anchor, provisions, or cargo, in the ship's hold. The *gunner's handspike* is shorter than the former, and armed with two claws for managing the artillery.

HANG-TCHEOU; a city in China, of the first rank, capital of Tche-kiang; 600 miles S. S. W. of Peking; lon. 119° 46′ E.; lat. 30° 20′ N. It is one of the richest and largest cities of the empire, called by the Chinese the *terrestrial paradise*, and said to contain 1,000,000 souls. It is situated between the basin of the grand canal and the river Tsien-tang, which falls into the sea at the distance of little more than sixty miles to the eastward. The tide, when full, increases the width of this river to about four miles, opposite to the city. It has nothing grand in its appearance, except its walls. The houses are low, none exceed two stories; the streets are narrow; they are paved with large, smooth flags in the middle, and with small flat stones on each side. The chief streets consist entirely of shops and warehouses, many not inferior to the most splendid of the kind in Europe. A brisk and extensive trade is carried on in silks, and not a little in furs and English woollen cloths. The country around produces great quantities of excellent silk; and the people of the place say that 60,000 persons are employed in raising it in the neighbouring towns and villages.

HANMER, Sir Thomas, was born in 1676, and succeeded his uncle in his title and the family estate of Hanmer. In 1713, he was chosen speaker of the house of commons. This distinguished office he held during the remainder of his parliamentary career. Towards the close of his life, he withdrew altogether from public business, and occupied himself in elegant literature; the fruits of which appeared in a corrected and illustrated edition of Shakspeare's dramatic works, in six quarto volumes. He died in 1746.

HANNIBAL, or ANNIBAL; son of Hamilcar Barcas; born B. C. 247. At the age of nine years his father, whom he was eager to accompany in the war against Spain, made him swear at the altar eternal hatred to the Romans. He was a witness of his father's achievements in Spain; but Hamilcar having fallen in battle, in Lusitania, nine years afterwards, and his son-in-law, Hasdrubal, having been appointed to succeed him, Hannibal returned home. At the age of twenty-two, he returned to the army at the request of Hasdrubal. The soldiers perceived in him the spirit of Hamilcar, whom they had so highly esteemed; and, in three campaigns, his talents and his courage were so conspicuous, that the army, on the murder of Hasdrubal, in 221, conferred on him the chief command by acclamation. Faithful to his early vow, the young general of twenty-six years soon manifested his determination to violate the treaties with Rome, whenever an opportunity should offer. This object was effected by the capture of Saguntum, which he took, with the consent of the Carthaginian senate, after a siege of eight months. The Romans, alarmed by the fate of this city, sent ambassadors to Carthage to demand that Hannibal should be delivered up. The demand being refused, they declared war. Hannibal raised a powerful force, and conceived the bold design of attacking the Romans in Italy. After providing for the security of Africa, and having left his brother Hasdrubal with an army in Spain, he began his march with about foot-soldiers, forty elephants, and 12,000 horse. traversed Gaul in the depth of winter with incredible rapidity, and reached the foot of the Alps. In nine days, he crossed the summit of the Little St Bernard. At least this is the spot fixed upon by the curious investigations of general Melville; but, according to Reichard, he crossed the Genevre. Of the troops with which he had set out, however, he had now only 20,000 foot-soldiers and 6000 horse remaining, and these were little more than skeletons. But his courage remained unshaken, and his only alternative was victory or death. The capture of Turin secured him a supply of provisions, and encouraged the people of

Cisalpine Gaul to join him. These auxiliaries would have been still more numerous, had not Publius Scipio approached, by forced marches, at the head of a Roman army, which had landed at Pisa. On the banks of the Ticinus the armies engaged, and a charge of the Numidian horse left Hannibal master of the field. Scipio avoided a second battle, and retreated beyond the Trebia, leaving the strong town of Clastidium in the enemy's hands. Meanwhile Sempronius arrived with a second army, which held the Carthaginian leader in check for a while; but Hannibal soon provoked his impetuous adversary to an engagement, disposed an ambuscade near the Trebia, and surrounded and destroyed the Roman forces. The Romans lost their camp and 26,000 men. Hannibal now retired to winter quarters among his allies, in Cisalpine Gaul; and, at the opening of the next campaign, he found two new armies awaiting his approach in the passes of the Apennines. He determined to engage them separately, and destroy Flaminius before the arrival of his colleague. He deceived him, therefore, by feigned marches, crossed the Apennines, and traversed the Clusian marsh. For four days and nights the Carthaginians were marching through water. Even Hannibal, who had mounted the only remaining elephant, saved himself with difficulty, and lost an eye in consequence of an inflammation. He had scarcely regained firm footing, when he employed every means to compel Flaminius to a battle. He wasted the whole country with fire and sword, and feigned a march to Rome; but suddenly formed an ambush in a narrow pass, surrounded by almost inaccessible rocks. Flaminius, who inconsiderately followed him, was immediately attacked; a bloody engagement took place near the lake Thrasymenus, in which Roman valour was overcome by artifice and superior skill. Assailed on every side, the Roman legions were cut in pieces without being able to display their columns. Enriched with the spoils of the conquered, Hannibal now armed his soldiers in the Roman manner, and marched into Apulia, spreading terror wherever he approached. Rome, in consternation, intrusted her safety to Fabius Maximus, the dictator, who determined to exhaust by delay the strength of the Carthaginians. He attacked Hannibal with his own weapons, and hung upon him every where without attempting to overtake him, convinced that the Carthaginians could not long hold a desolated territory. These were led by their general into the plains of Capua, with the design of separating the terrified cities from their alliance with the Romans, and drawing down Fabius from the mountains. But he suddenly found himself in the same toils in which Flaminius had perished. Shut up between the rocks of Formiæ, the sands of Lecsternum, and impassable marshes, he was indebted for his safety to a stratagem. Having collected a thousand oxen, and fastened burning torches to their horns, he drove the furious animals at midnight into the defiles which were guarded by the Romans. Panic-struck at the terrible sight, they abandoned the heights, and Hannibal forced his way through their ranks. The Romans, dissatisfied with the delay of Fabius, now made Minutius Felix, master of the horse, his colleague in the dictatorship. Eager for combat, he fell into an ambush at Gerunium, and would have perished, but for the aid of Fabius. After this campaign, the other Roman generals seemed unwilling to trust any thing to chance, and imitated the delay of Fabius. Hannibal saw with grief his army slowly wasting away, when the new consul, Terentius Varro, an inexperienced and presumptuous man, took the command of the legions. Hannibal had occupied Cannæ, and reduced the Romans to the necessity of risking an engagement. The two armies were drawn up in presence. Paulus Æmilius, the colleague of Varro, wished to put off the battle, on account of the disadvantageous position of the Romans; but Varro chose the day of his command, gave the signal for the attack, and the Roman army was destroyed. Hannibal now marched to Capua, which immediately opened its gates. Although the soldiers were enervated by a residence in this luxurious city, no Roman general, after the battle of Cannæ, ventured to show himself in the plain. Hannibal, however, was no longer in a condition to prosecute his successes. His army was enfeebled; and, notwithstanding his splendid success and the influence of his party in Carthage, his enemies had gained such an ascendency, that his brother Hasdrubal with difficulty procured him a small reinforcement of 12,000 foot and 2500 horse, which he was obliged to conduct by the way of Spain. Hannibal was therefore compelled to assume the defensive. Capua was invested by two consular armies, and was on the point of surrendering. Hannibal hoped to save it by a bold diversion. He marched to Rome, and encamped in sight of the capitol, B. C. 211; but the Romans were not thus to be discouraged; Capua fell. This success gave the Romans a decided superiority, and nearly all the people of Italy declared in their favour. Held in check by the consul, Claudius Nero, Hannibal could not effect a union with his brother, who, after having passed the Apennines, was attacked and defeated by Nero, in 207. Hasdrubal himself fell, and his bloody head was thrown into the camp of Hannibal. The latter then retired to Bruttium, where, surrounded with difficulties, he yet maintained the contest with inferior forces against victorious armies. But Scipio now carried the war into Africa, and made Carthage tremble; and Hannibal was recalled to defend his country. "Not Rome, but the senate of Carthage has conquered Hannibal," he exclaimed in the deepest anguish, when he read the orders recalling him from Italy. He embarked his troops, put to death the Italian allies who refused to accompany him, and, in 205, left the country which, for sixteen years, he had held in spite of all the efforts of Rome. He landed at Leptis, gained over a part of the Numidians, and encamped at Adrumetum. Scipio took several cities, and reduced the inhabitants to slavery. Pressed by his countrymen to come to a decisive engagement, Hannibal advanced to meet him, and encamped at Zama, five days' journey from Carthage. The two generals had an interview, and Hannibal proposed terms of peace; but in vain. Hannibal was defeated; 20,000 Carthaginians were left upon the field, and as many more taken prisoners. Hannibal fled to Adrumetum, rallied the fugitives, and, in a few days, collected a new army capable of checking the conqueror's progress. He then hastened to Carthage, and declared to the senate that there was no safety but in peace; and persuaded that body to accede to the terms offered.

Thus ended the bloody contest of eighteen years; doubly fatal to Carthage, which was at once stripped of her former conquests, and of all hope of new ones, by the loss of her fleet. Hannibal, nevertheless, still retained his credit, and was made commander-in-chief of an army in the interior of Africa. But the partisans of Hanno, his bitterest enemy, continued to persecute him, and accused him to the Romans of maintaining a secret correspondence with Antiochus, king of Syria, with the design of lighting anew the flames of war. Ambassadors were accordingly sent to Carthage, to demand that he should be delivered up. He saved himself, however, by fleeing to Cercina, and thence to Tyre, where he was received with the greatest honours. He afterwards went to Ephesus, to the court of Antiochus, engaged him to

declare war against the Romans, and persuaded him that Italy must be made the theatre of action. Antiochus approved his plans; but when Hannibal proposed an alliance with that prince to his own country, his enemies prevailed in the senate, and the whole design was frustrated. He was indeed appointed to the command of the Syrian fleet, and attacked the Rhodians, who were allies of Rome; but, owing to the treachery of one of his officers, he was forced to retreat. Antiochus himself was led by a series of misfortunes and errors to conclude a disgraceful peace. Hannibal was again obliged to flee, to escape being delivered up to the Romans, and went to the court of Prusias, king of Bithynia, who was animated by the same spirit of hostility against the Romans. He was the soul of a powerful league formed between Prusias, and several neighbouring princes, against Eumenes, king of Pergamus, an ally of Rome, took the command of the military force, and gained several victories by land and sea. Notwithstanding these advantages, Asia trembled at the name of Rome; and Prusias, to whom the senate had sent ambassadors to demand the person of Hannibal, was on the point of complying with the requisition. But the hero prevented the disgrace by swallowing poison, which he always carried about in his ring. He died B. C. 183, aged sixty-four years. In the work *Hannibal's Heerzug uber die Alpen* (Hannibal's March over the Alps), by C. L. E. Zander (Hamb. 1823, 4to), all the previous investigations concerning Hannibal's route are collected; the author follows Deluc.

HANNO; a Carthaginian general, who made a voyage on the western coast of Africa, of which he has left the description. The purpose of this voyage was to make discoveries for the benefit of commerce, and to settle colonies, of which he established six on the coast of Morocco, whence he continued his voyages of discovery. From his description, he probably proceeded as far as the coast of Guinea; for his accounts of the people he describes, are applicable to the Negroes of that country, and the two large streams containing crocodiles and hippopotamuses correspond to the rivers Senegal and Gambia. Hanno lived, probably, 550 B. C., and deserves a distinguished place amongst the ancient navigators. The *Periplus* of Hanno is the Grecian translation of the relation of his voyage. An English translation of it by Falconer appeared in 1797 (8vo).

Two Carthaginian generals, of the name of Hanno, commanded in Sicily, successively, during the first Punic war.

Another Hanno was one of the commanders under Hannibal in Italy, and was distinguished by several fortunate enterprises.

HANOVER; a kingdom in the north of Germany, united to the crown of Great Britain, consisting of the duchy of Bremen, the principality of Luneburg, and of several other countries. It does not form a consolidated whole, several portions of it being detached from the main body. Area, 14,800 square miles. The inhabitants, in 1829, amounted to 1,582,574, of whom 1,253,574 are Lutherans, 200,000 Catholics, and the rest Calvinists, Jews, and Menonites. Its figure somewhat resembles an oblong square, having the Elbe along its north-east side, the German ocean on the north-west, Dutch Friesland, with Prussian Westphalia, on the south-west, and Saxony on the south-east. It lies between 6° 51′ and 11° 51′ of E. lon., and 51° 18′ and 53° 54′ of N. lat. In 1815, it was divided into the eleven following provinces: Calenberg, Gottingen, Luneburg, Hoya and Diepholtz, Hildesheim, Osnabruck, Verden, the duchy of Bremen (which is distinct from the town), Bentheim, East Friesland, and Lingen (with part of the lordships of Rheina and Meppen.) These provinces are subdivided into 107 bailiwics. With the exception of the Harts, and other elevated tracts in the south, the territory of Hanover consists of an immense plain, with gentle undulations, but hardly any thing that can be called a mountain. In the south, the valleys are fertile. In the north are many barren heaths and moors. The most productive tracts are those along the banks of the rivers, which have been reclaimed from a marshy state. The mountain tract of the Harts is covered with vast forests, which are particularly valuable in this quarter as they afford fuel for the supply of the mines, with which the country abounds, and which are still more valuable than its forests. Those of silver were discovered as early as the year 968, and are supposed to have been the first opened in Europe. Iron, copper, and lead are wrought here to a great extent also zinc and sulphur, with green, blue, and white vitriol. The iron mines are the most productive, and their annual tenth yields a revenue of above £115,000 sterling. The rivers of Hanover are the Elbe (joined by the Jeetse), the Ilmenau, the Aller, the Weser (which receives the Leine), the Ocker, the Innerste, the Ruhme, and the Embs (joined by the Stunte and Hase). The chief lakes are those of Steinhude and Dummer. The Harts, being a mountain tract, is, like other mining districts, deficient in corn. The duchy of Luneburg contains immense heaths, called, on account of their barrenness, the *Arabia of Germany*. These are turned to account as sheep-walks, and, in some degree, as affording nourishment to bees. The corn cultivated is a mixture of wheat, barley, and oats, but with a considerable proportion of rye and buck-wheat; peas and beans are very generally raised; but agriculture is, in many parts of the kingdom, in a very backward state. Thread and linen manufactures are carried on in various parts. The other manufactures of the kingdom are coarse woollens, paper, leather, and glass, carried on in a number of places, but on a small scale in each. The only town which has a maritime trade of consequence is Embden. Four fairs are held annually at Hanover, and two at Osnabruck. The goods imported from abroad are British manufactures and colonial produce; linen from Friesland and Prussia; broad cloth, silk, and jewelry from France. The chief exports are coarse linen, iron, and copper from the Harts, timber cut into planks, with horses and black cattle from various parts of the country. Hanover has one university, thirty-seven gymnasia and Latin schools, 3561 common schools in towns and villages, four seminaries for the education of schoolmasters, six schools for midwives, &c. Public debt, 30,000,000 guilders; revenue of 1829, 3,202,324 guilders; expenditure, 3,127,692; standing army, 12,940; contingent to the army of the Germanic confederacy, 13,054.

The duke of Brunswick Luneburg was raised to the electoral dignity in Hanover in 1692. In 1714 the reigning elector succeeded to the throne of Great Britain, as the next protestant heir to the house of Stuart. Between 1801 and 1813, Hanover was repeatedly overrun by the French, and annexed, successively, to Prussia, Westphalia, and France. On the expulsion of the French in 1813, the whole electorate was re-established under the name of a kingdom. In the diet, the king of Hanover occupies the fifth rank, and has four votes at the general assembly. The crown is hereditary in the male line only. On the 7th December 1819, the prince regent (afterwards George IV.) gave Hanover a constitution, if we may designate by this name the charter, which expressly says, that no untried principles shall be introduced but that, in the main, the chambers shall exercise the

ame privileges as the former provincial deputies. The provincial estates were not abolished, and the regent reserved to himself the right to change and modify the charter, which is founded on old aristocratic principles. The Hanoverian nobility is noted as the most arrogant in Germany, and the least advanced in modern liberal ideas. There are two chambers, neither of which is founded on the principle of general representation. Their first session was opened, December 28, 1819, and the duke of Cambridge, brother to the regent, in his speech, reminded the two chambers that they were divided only to investigate the affairs of the country more thoroughly, and not to have different principles of deliberation. Publicity of debate, of course, was not admissible. The privileges of these chambers amount to little more than the liberty of discussing matters which government lays before them. By the edict of October 12, 1822, the government received a new organisation, and the kingdom was divided into seven districts. At the head is a ministry at Hanover, which makes reports to the king in England, and receives orders in regard to affairs of importance. In many parts of the country, the feudal jurisdictions still exist, and, in many instances, the judicial and executive authority are still united, as was formerly the case almost every where. At Zell, there is a supreme court of appeal. The duke of Cambridge, brother to William the IV., is governor-general of Hanover.

HANOVER; a city of Germany, the capital of the kingdom of that name, on the Leine, which here becomes navigable. It is in the form of a half moon, and is separated, by the river, into two parts, called the Old and New Town. These were formerly surrounded with walls and ditches; but, in 1780, part of the ramparts were levelled, and laid out into streets, and the rest formed into an esplanade, where a monument has been erected to Leibnitz. Hanover belonged to the Hanseatic league, in the middle ages. The town has an antiquated aspect. This is particularly the case in what is called the Old Town. The New Town, which stands on the right side of the river, is built in much better style than the Old. The public buildings are the elector's palace, and the public library, founded by Leibnitz. The charitable institutions are an orphan-house, two hospitals, and two poor-houses. For the purpose of education, there is a gymnasium, a female school of industry, and several elementary schools. The Georgianum is a school, erected in 1796, for the education of forty sons of Hanoverian nobles. Herrnhausen and Montbrillant are country mansions of the royal family, at some distance from the town. The inhabitants of Hanover derive their chief support from the presence of the court, and the gentry of landed property. They have, however, some manufactures on a small scale, such as gold and silver lace, the printing of cotton and linen, the preparation of cichory for coffee, brewing, making of vinegar, &c. Population 27,500; 154 miles W. Berlin; 9° 42′ 51″ E.; lat. 52° 22′ 25″ N.

HANSA, or HANSEATIC LEAGUE. In the middle of the thirteenth century, the sea and land swarmed with pirates and robbers. The German trade, during this reign of violence, became exposed to various accidents, when the merchants lost the right of travelling with armed attendants, and the convoy afforded by government degenerated into a means of extorting a tax without yielding any protection. Hamburg and Lubeck, which, with Bremen, had become important, since the time of the Othos, found a powerful common enemy in the Danish king Waldemar, whom they opposed with great vigour. This circumstance, the insecurity of the navigation of the Elbe, which was becoming constantly more infested with pirates, and the increasing dangers of the roads, gave rise to a convention, in 1239, between Hamburg, the free city of Ditmarsh, and Hadeln, and in 1241, to a confederacy between Hamburg and Lubeck, in which they mutually engaged to defend each other against all violence, and particularly against the attacks of the nobles. The confederacy was joined, in 1247, by Brunswick, which served as a depot to the two first named towns; for while Italy was in possession of the trade to the Levant and India, a commercial route had been formed through Germany, by the way of the Upper Palatinate and Franconia, to the East of the Harts, and through Brunswick to Hamburg, although, at the same time, some goods were carried down the Rhine. Thus Brunswick was especially interested in the allied towns, which were soon joined by numerous others. This union was called, by way of eminence, the *Hansa*, which in the old Teutonic dialect, signifies a *league* for mutual defence. In a short time, the members became so numerous that, in 1260, a diet was held at Lubeck, the chief city of the league. Regular meetings of the confederacy now took place there every three years, about Whitsuntide, and the general archives of the league were kept there.

The number of the Hanse towns varied. The largest number was eighty-five, as follows: Anclam, Andernach, Aschersleben, Berlin, Bergen in Norway, Bielefeld, Bolswært in Friesland, Brandenburg, Braunsberg, Brunswick, Bremen, Buxtehude in the duchy of Bremen, Campen in Overyssel, Dantsic, Demmin in Pomerania, Deventer, Dorpat, Dortmund, Duisburg, Einbeck in the Harts, Elbing, Elburg in Guelderland, Emmerich in Cleves, Frankfort on the Oder, Golnow in Pomerania, Goslar, Gottingen, Greifswald, Groningen, Halle in Saxony, Halberstadt, Hamburg, Hameln, Hamm in Westphalia, Hanover, Harderwyck in Guelderland, Helmstadt, Hervorden in Westphalia, Hildesheim, Kiel, Coesfeld in Munster, Colberg, Cologne on the Rhine, Konigsberg in Prussia, Cracow in Poland, Culm in Prussia, Lemgo in Westphalia, Lixheim in Lorraine, on the borders of Alsace, Lubeck, Luneburg, Magdeburg, Minden in Hanover, Munster, Nimeguen in Guelderland, Nordheim, Osnabruck, Osterburg in the Altmark, Paderborn, Quedlinburg, Revel, Riga, Rostock, Rugenwalde, Ruremond in Guelderland, Salswedel, Seehausen in the mark of Brandenburg, Soest in Westphalia, Stade in Bremen, Stargard, Staveren in Friesland, Stendal, Stettin, Stolpe, Stralsund, Thorn, Venloo in Guelderland, Veltzen in Luneburg, Unna in Westphalia, Warberg in Sweden, Werben in the Altmark, Wessel, Wisby in Gothland, Wismar, Zutphen, Zwoll in Guelderland.

These towns were divided into four provinces, each having a chief town. To the first belonged the Wendish or Vandalic towns; chief city, Lubeck: to the second, the towns of Cleves, the Mark, and Westphalia, and the four towns in Guelderland, which were not subject to the government of Burgundy; chief city, Cologne: to the third belonged the Saxon and Brandenburg towns; chief city, Brunswick: and to the fourth, the Prussian and Livonian towns; chief city, Dantsic. At another period, the whole was divided into three provinces. At the same time, four great factories or depots were established in foreign countries: at London, in 1250; at Bruges, in 1252; at Novgorod, in 1272; and at Bergen, in 1278. Charters from kings and princes gave firmness to the whole; and, in 1364, an act of confederacy was drawn up at Cologne.

In the fourteenth century, the league every where

attained a high political importance, and gave rise to the development of that commercial policy which has since become intimately connected with all political relations, but of which the sovereigns of that time had little idea. The object of the league was now more fully declared; to protect themselves and their commerce from pillage; to guard and extend the foreign commerce of the allied cities, and, as far as practicable, to monopolise it; to manage the administration of justice within the limits of the confederacy; to prevent injustice by public assemblies, diets, and courts of arbitration; and to maintain the rights and immunities received from princes, and, if possible, to increase and extend them. Among the internal regulations were, the obligations incurred, on being received into the confederacy, to furnish soldiers and vessels, or, in certain cases, money as a substitute, and to pay the duties and amercements. The league exercised a judicial power, and inflicted the greater and lesser ban. Any place which incurred these punishments was said to be *verhanset*. Foreign factories were subject to an almost monastic discipline, which even required the celibacy of factors, masters, and members of the guilds. The laws prescribed to the agents of our own fur companies, in North America, and the North-west, and Hudson's bay companies, resemble in many particulars, those of the Hanseatic factories. By a uniform adherence to their great object, and by the maintenance of good order, the Hanseatic cities obtained a great importance, although the confederacy was never formally acknowledged by the empire; and kings and princes were, in reality, more dependent on the league than it was on them. The Hanse towns in England were exempted from duties on exports, and in Denmark, Sweden, and Russia, from those on imports—privileges which were enjoyed by no subjects of those countries.

The extensive carrying trade of the Hanseatic confederacy was a great source of wealth; and, at length, there was no mart in Europe which was not gradually drawn within the circle of its influence; and, by the greatness of its wealth and the might of its arms, it became the mistress of crowns, and lands, and seas. It conquered Eric and Hakon, kings of Norway, and Waldemar III. of Denmark. It deposed a king of Sweden, and gave his crown to Albert, duke of Mecklenburg. In 1428, it equipped a fleet of 248 ships, with 12,000 soldiers, against Copenhagen. Niederhoff, a burgomaster of Dantsic, ventured to declare war against Christian, king of Denmark. England, Denmark, and Flanders concluded treaties with the league, for the extension of their commerce. It undertook to provide for the security of commerce on the Baltic and North seas. In the country under its immediate influence, it constructed canals, and introduced a uniform system of weights and measures.

But the prosperity of the Hanse towns was naturally dependent on the continuance of the circumstances which gave rise to it; and when those circumstances changed, the league was destined to fall. When, therefore, the routes by land and sea were no longer insecure; when princes learned the advantages of trade to their own states, and turned their attention to the formation of a naval force of their own, and the encouragement of navigation; when the inland members of the confederation perceived that the great seaport towns had a separate interest of their own, and used them principally to promote their own ends; when the maritime towns ceased to be the masters of the Baltic, and the German princes determined to subject those of the interior to their immediate control, in order to secure the greatest possible advantages from their commerce, to which they were encouraged especially by the emperor Charles V., who thought to improve the commerce of his possessions in the Netherlands, and was, consequently, disaffected to the alliance; and when the discovery of America produced a total revolution in trade,—then the dissolution of the Hanseatic league was evidently approaching. The last diet was held at Lubeck, in 1630, and the confederation was dissolved. But Hamburg, Lubeck, and Bremen united anew (and, in certain cases, Dantsic was admitted among them), though not under the name of Hanseatic towns. In 1826, Great Britain concluded treaties with the Hanseatic towns, regulating the trade on principles of reciprocity, the same as with Sweden, Denmark, &c. (See *Bremen*, *Hamburg*, *Lubeck*, and *Free Cities*.) The name of *Hanse towns* no longer exists in the vocabulary of politics. Hamburg, Bremen, Lubeck, and Frankfort are styled, in the German confederation, the *four free cities*.

HANS FOLZ. See *Folz*.

HANS SACHS. See *Sachs*.

HANWAY, JONAS, a merchant and traveller, distinguished for his active benevolence, was born at Portsmouth in 1712. At an early age he was apprenticed to a merchant at Lisbon, and, in 1743, became a partner in a British house at Petersburg. The concerns of the partnership rendered a journey to Persia desirable, it was gladly undertaken by Mr Hanway, who went to Astrabad with a cargo of British goods. In 1753, he published a work entitled An Historical Account of the British Trade over the Caspian Sea, &c., with the particular History of the great Usurper Nadir Kouli (4 vols. 4to). In the same year, he engaged in the controversy concerning the naturalisation of the Jews, and published a Review of the proposed Naturalisation, by a Merchant; a third edition of which appeared the same year. From this time, Mr Hanway continued publishing, on a variety of topics, all relating to points of public good, or schemes of charity and utility. His fellow citizens entertained such a sense of his merits, that a deputation of the principal merchants of London waited upon lord Bute, to request that some public mark of favour might be conferred upon a man who had done so much service to the community, at the expense of his private fortune. He was, in consequence, made a commissioner of the navy, which post he held for twenty years, and, on resignation, was allowed to retain the salary for life. He died in 1786, and a monument was erected to him by subscription.

HAPSBURG (properly *Habsburg*); a small place in the Swiss canton of Aargau, on the right bank of the Aar. The castle was built, in the eleventh century, by bishop Werner, on a steep, rocky situation; whence the name, which was originally *Habichtsburg* (Hawk's-Castle). The proprietors of Hapsburg became, at a later period, counts of Hapsburg, and gradually acquired a more extensive territory. In 1273, Rodolph, count of Hapsburg was chosen emperor of Germany. He is the founder of the reigning house of Austria, which is of the line of Hapsburg-Lorraine. From Rodolph to Charles VI., the Austrian monarchs were of the Hapsburg male line. Maria Theresa, who succeeded Charles VI., married Francis Stephen of Lorraine, who, in 1745, was chosen emperor of Germany. Their son, the first of the Hapsburg-Lorraine line, Joseph II., died 1790. His successor, Leopold II., died 1792. His successor, Francis (as emperor of Germany, II.; as emperor of Austria, I.), died in 1835. The castle of Hapsburg is still to be seen on the Wasserpelsberg.

HARDENBERG, FREDERIC von; known as an author under the name of *Novalis*, born May 2,

1772, died March 25, 1801. His parents paid great attention to his education. In Jena, Von Hardenberg studied philosophy, and at Leipsic and Wittenberg, the law. From thence he went to Tennstadt, where it was intended he should be practically instructed in jurisprudence. In December, 1797, he went to Freyberg, where Julia von Charpentier won his affections. In 1799, he formed a friendship with L. Tieck and the two Schlegels. He had made himself well acquainted with law, natural philosophy, mathematics and philosophy, but was most eminent for his poetical talents. In the works of Novalis, there is a singular mixture of imagination, sensibility, religion, and mysticism. He was the gentlest and most amiable of enthusiasts. Some of his hymns are very beautiful. His novel *Heinrich von Ofterdingen* was left unfinished. His Hymns to Night have the greatest merit. His works have been published at Berlin (1814 and 1816, 3d edit.).

HARDENBERG, Charles Augustus (baron, afterwards prince of); Prussian chancellor of state. He was born at Hanover, May 31, 1750, and, after having completed his studies in Leipsic and Gottingen, entered into the civil service of his country in 1770. He passed several years in travelling through Germany, France, Holland, and particularly England. In 1778, he was made privy counsellor; but a misunderstanding with one of the English princes induced him to resign his place in 1782, and to enter the service at Brunswick. The duke sent him to Berlin, in 1786, with the will of Frederic II., which had been deposited with him. Here he gave so much satisfaction, that the duke sent him repeatedly to the same place. In 1790, he was made minister of the last margrave of Anspach and Baireuth, on the recommendation of Prussia. When the margravate was incorporated with Prussia, Hardenberg remained in his office, and was made Prussian minister of state, and, soon after, cabinet minister. April 5, 1795, he signed the peace between the French republic and Prussia, on the part of the latter. At the beginning of this century, Berlin became the centre of many negotiations between the northern powers. The minister Haugwitz favoured France, but the influence of Hardenberg decided the Prussian cabinet to take part with England. Count Haugwitz therefore gave in his resignation, and Hardenberg succeeded him, in August, 1804. The disasters which Prussia soon after suffered, in the conflict with Napoleon, are well known. In consequence of the treaty of December 15, 1805, which Haugwitz concluded at Vienna, between Prussia and France, Hardenberg again gave up his place to that minister; but, on the breaking out of the war of 1806, he once more resumed the portfolio. After the peace of Tilsit, he asked for his dismission; but, in 1810, the king of Prussia appointed him chancellor of state (prime minister), and endeavoured to form a union with France; but the disasters of the French army in Russia changed his policy. Hardenberg signed the peace of Paris, and was created prince. He went to London with the sovereigns, and was one of the most prominent actors in the congress of Vienna. He was subsequently the active agent in all matters in which Prussia took part; he was made president of the council of state; as present, in 1818, at the congress of Aix-la-Chapelle; in 1819, at Carlsbad; in 1820, at Vienna, at Troppau and Verona. While on a journey in the north of Italy, he fell sick at Pavia, and died at Genoa, November 27, 1822. As to his political principles in the latter part of his life, he was an active minister of the holy alliance; but, still, he understood that the time of feudalism was past, and his abolition of feudal services and privileges in Prussia will always be remembered in his favour. He patronised the sciences munificently, and the foundation of the university of Bonn is honourable to him. He loved power, but, at the same time, his administration had many good features. In the years 1807—1810, prince Hardenberg wrote Memoirs on his Time, from 1801 to the peace of Tilsit, and, before his death, gave the manuscript to Scholl, a counsellor of state. The king, however, sealed it with his arms, and ordered it not to be opened until 1850. Hardenberg was twice married. His son by the first marriage is a count, and in the Danish service.

HARDICANUTE, king of England and Denmark, was the son of Canute, by Emma, daughter of Richard, duke of Normandy. He succeeded his father on the Danish throne in 1038, and, at the same time, laid claim to that of England, which had devolved to his elder and half-brother, Harold. A compromise was effected, by which the southern part of the kingdom was, for a while, held in his name by his mother Emma; and, on the death of his brother, he succeeded to the whole. His government was violent and tyrannical; he revived the odious tax of Danegelt, and punished, with great severity, the insurrections which it occasioned. The death of this despicable prince, in consequence of intemperance at the nuptials of a Danish nobleman, brought his reign to an early termination, to the great joy of his subjects, in 1041.

HARDNESS, in physiology; the resistance opposed by a body to impression, or to the separation of its particles. This property depends on the force of cohesion, or on that which chemists call *affinity*, joined to the arrangement of the particles, to their figure, and other circumstances. A body, says M. Hauy, is considered more hard in proportion as it presents greater resistance to the friction of another hard body, such as a steel file; or as it is more capable of wearing or working into such other body, to which it may be applied by friction. Lapidaries judge of the hardness of fine stones, &c., from the difficulty with which they are worn down, or polished.

HARDOUIN, John; a learned French Jesuit, no less celebrated for his intimate acquaintance with the classical authors of antiquity, than remarkable for the singularity of his opinions respecting the authenticity of their writings. He was born in 1646, at Quimper in Bretagne, and died at Paris, 1729. The work by which he is principally known, is his *Chronologiæ ex Nummis antiquis restitutæ Prolusio de Nummis Herodiadum*, in which he supports the extraordinary hypothesis, that almost all the writings under the names of the Greek and Roman poets and historians, are the spurious productions of the thirteenth century. His exceptions to this denunciation are, the works of Cicero and Pliny, as well as of some of those attributed to Horace and Virgil. He contends, at the same time, that the two latter are allegorical writers, who, under the names of Lalage and Æneas, have represented the Christian religion and the life of its founder. This treatise was condemned and proscribed, the author was called upon for a public recantation of his errors, which in fact he made; but he afterwards repeated his offence in other publications. Among his 102 works are, *Nummi antiqui Populorum et Urbium illustrati* (1684); Pliny's Natural History, in usum Delphini (5 vols. 4to, 1685); and another in twelve folio volumes of The Councils (1705). On this latter work he expended a great deal of time and labour, but it was suppressed by the parliament. He considered all the councils, previous to that of Trent, as imaginary. A selection from father Hardouin's works, comprising most of those which had fallen under the censure of the Romish church, appeared,

in 1700, at Amsterdam. The following epitaph, which has been erroneously ascribed to Atterbury, and to president de Bose, was written by Jacob Vernet, of Geneva :

Hic jacet hominum paradoxotatos,
Orbis literati portentum,
Venerandæ antiquitatis cultor et depredator,
Docte febricitans,
Somnia et inaudita commenta vigilans edidit,
Scepticum pie egit,
Credulitate puer,
Audaciâ juvenis,
Deliriis senex.

HARE *(lepus)*. The generic characters of this well known animal are, four cutting teeth in the upper jaw, and two in the lower; two of the upper teeth, however, are placed behind the others, and are of a much smaller size; the whole dental formula is, incisors $\frac{4}{2}$, canines $\frac{0}{0}$, molars $\frac{12}{10}$=28; the two fore feet with five, and the hinder with four, toes. These animals are found in almost every part of the world, living entirely on vegetable food, and all remarkably timid. They run by a kind of leaping pace, and, in walking, use their hind feet as far as the heel. Their tails are either very short or almost wanting. The female goes with young about a month, generally producing three to six at a litter, and this about four times a-year. The eyes of the young are open at birth. The dam suckles them about twenty days, after which they leave her, and procure their own food.

The European hare *(L. timidus)* is found throughout Europe, and some parts of Asia. The colour of this species is of a tawny red on the back and sides, and white on the belly. The ears, which are very long, are tipped with black; the eyes are very large and prominent. The length of this animal is about two feet, and, when full grown, it weighs six to eight pounds. It is a watchful, timid creature, always lean, and, from the form of its legs, runs swifter up hill than on level ground. Hares feed on vegetables, and are very fond of the bark of young trees; their favourite food, however, is parsley. Their flesh was forbidden to be eaten among the Jews and the ancient Britons, whilst the Romans, on the contrary, held it in great esteem. "*Inter quadrupedes gloria prima lepus*,"—Martial; and Horace, who is good authority as an epicure, says, Every man of taste must prefer the fore shoulder—"*Fecundi leporis sapiens sectabitur armos*." The flesh is now much prized for its peculiar flavour, though it is very black, dry, and devoid of fat. The voice of the hare is never heard but when it is seized or wounded. At such times, it utters a sharp, loud cry, not very unlike that of a child. It has a remarkable instinct in escaping from its enemies; and many instances of the surprising sagacity of these animals are on record, though it appears that all of them do not possess equal experience and cunning. A perpetual war is carried on against them by cats, wolves, and birds of prey; and even man makes use of every artifice to entrap these defenceless and timid creatures. They are easily tamed, but never attain such a degree of attachment as renders them domestic, always availing themselves of the first opportunity to escape. Among the devices of hares to elude their pursuers, the following have been observed: Getting up into a hollow tree, or upon ruined walls; throwing themselves into a river, and floating down some distance; or swimming out into a lake, keeping only their nose above the surface; returning on their own scent, &c.

The American hare (*L. Americanus*), so well known under the name of *rabbit*, is found in most parts of North America. The summer hair is dark brown on the upper part of the head, lighter on the sides, and of an ash colour below; the ears are wide, edged with white, tipped with brown, and dark coloured on their back; tail, dark above, white beneath, having the inferior surface turned up; the fore legs are shorter and the hinder longer in proportion than those of the European. In the Middle and Southern States, the change in the colour of the hair is by no means as remarkable as it is farther north, where it becomes white, or nearly so. This species is from fourteen to eighteen inches long. The American hare generally keeps within its form during the day, feeding early in the morning or at night. The flesh is dark coloured, but is much esteemed as an article of food. It is in its prime late in the autumn and in the winter. It is not hunted in America as in Europe, but is generally roused by a dog, and shot or caught by means of snares or a common box trap: this latter is the most usual mode. In its gait, it is very similar to the European, leaping rather than running. Like that animal, it breeds several times during the year. There are several other species of the hare inhabiting North America, of which the most remarkable is the polar hare (*L. glacialis*). This occurs in numbers towards the extreme northern part of the continent. It is larger than the common hare. The fur is exceedingly thick and woolly, of the purest white in the cold months, with the exception of a tuft of long black hair at the tip of the ears. In summer the hair becomes of a grayish brown. See *Rees*.

HARELIP is a single or double fissure of the upper lip, by which it is divided into two or three parts, and is thus made to resemble the lip of the hare. Children are not unfrequently born with this deformity. The fissure is sometimes confined to the lip, but more commonly extends to the gums and palate, which it divides into two parts. It produces great difficulty in speech, and besides keeping the mouth open, and thus suffering the saliva to escape, it is a dreadful deformity in appearance. It is very common, but, fortunately, is easily curable, so that it seldom goes long unremedied, unless from choice or timidity. The operations for removing this most unfortunate deformity, in its worst forms, are among the merits which have given celebrity to the name of Dessault.

HAREM (Arabic, *sacred*, the *sanctuary*) is used by Mussulmans, to signify the women's apartments, which are forbidden to every man except the husband. It answers, in some measure, to the *gynæceum* of the Greeks. The term *seraglio*, often used by Europeans for *harem*, is a corruption of the word *serai*, a *palace*. The ladies are served by female slaves, and guarded by black eunuchs; the head of the latter is called *kizlar-aga*. There are two kislar-agas, one of the old, the other of the new palace, each of which has its harem. The one is occupied by the wives of former sultans, and those who have incurred the displeasure of the reigning prince; the other, by such as still enjoy his favour. Doctor Clarke, who visited the summer palace during the absence of the occupants, has given a particular description of it in his Travels (vol. iii., pp. 20—37). The women of the imperial harem are all slaves, generally Circassians or Georgians; for no free born Turkish woman can be introduced into it as an *odah-lic*, or chamber-maid. Their number depends solely on the pleasure of the sultan, but is very considerable. His mother, female relations, and grandees, vie with each other in presenting him the handsomest slaves. Out of this great number he chooses seven wives, although only four are allowed by the prophet. These are called *cadins*, and have splendid appointments. The one who first presents him with a male heir is styled the *sultana*, by way of eminence. She must then move into the *eski serai* (old palace); but if her son ascends the throne, she returns to the new palace, and has the title of *sultana valide*. She is the only one

an who is allowed to appear without a veil; none
the others, even when sick, are permitted to lay
side the veil, in the presence of any one except the
ultan. When visited by the physician, their bed
covered with a thick counterpane, and the pulse
elt through gauze. The life of the ladies of the
mperial harem is spent in bathing, dressing, walking
the gardens, witnessing the voluptuous dances
erformed by their slaves, &c. The women of other
urks enjoy the society of their friends at the baths
each other's houses, appear in public accompanied
y slaves and eunuchs, and enjoy a degree of liberty
hich increases as they descend in rank. But those
f the sultan have none of these privileges. When
ansferred to the summer residences on the Bos-
horus, they are removed at break of day, pass from
he garden to the boats between two screens, while
he eunuchs, for a considerable distance round, warn
very one off, on pain of death. Each boat has a
abin covered with cloth, and the eunuchs keep the
oatmen or *bostandjis* at a distance. It is, of course,
nly the richer Moslems who can maintain harems;
he poorer classes have generally but one wife.

HARIOT, or HERIOT, in law; a due belonging
o a lord at the death of his tenant, consisting of the
est beast, either horse, ox, or cow, which he had at
he time of his death; and, in some manors, the
est goods, piece of plate, &c., are called *hariots*.

HARLEIAN LIBRARY. See *Harley*.

HARLEM. See *Haarlem*.

HARLEQUIN (*arlecchino*, Italian). It is not in
ur power to determine the etymology of the name
f this dramatic personage. Ménage derives it from
comedian, who was so called because he frequent-
d the house of M. de Harlay, in the reign of Henry
II. of France. Batteux derives it from the satirical
rama of the Greeks. Riccobini conjectures (His-
ory of the Italian Theatre) that the dress of the har-
equins is no other than the *centunculus* of the old
loman *mimi*, who had their heads shaved, and were
alled *planipedes* (barefooted). To the reasons ad-
uced by Riccobini, we may add the ridiculous sword
f the ancient *mimi*, which, with the harlequin, has
een converted into a stick. Harlequins and buf-
oons are also called *zanni*, by the best Tuscan writ-
rs, probably from the Latin *sannio*, of which Cicero
De Oratore, ii. 61) gives a description applying so
trongly to the harlequin, that it places his deriva-
ion from the *planipedes* almost beyond a doubt. The
haracter of the ancient harlequin was a mixture of
xtravagant buffoonery with great corporeal agility,
o that his body seemed almost constantly in the air.
le was impudent, droll, satirical, and low, and often
ndecent in his expressions. But, in the middle of
he sixteenth century, his character was essentially
hanged. The modern harlequin laid aside the pecu-
arities of his predecessor. He became a simple,
gnorant servant, who tries very hard to be witty,
ven at the expense of being malicious. He is a
arasite, cowardly, yet faithful and active, but easily
nduced, by fear or interest, to commit all sorts of
ricks and knaveries. He is a chameleon, who assumes
ll colours, and can be made, in the hands of a skil-
l actor, the principal character on the stage. He
nust excel in extempore sallies. The modern har-
equin plays many droll tricks, which have been
anded down, from generation to generation, for cen-
uries. This account applies more particularly to the
talian harlequin. Italy, in fact, particularly in the
ommedia dell'arte, is his natural scene of action.
le can only be properly appreciated when seen in
hat department of the drama, and distinct from all
heir similar personages. He has found an able ad-
ocate in Moser (Harlequin, or Defence of the Gro-
esque-Comic). (See *Mask*.) The gallant, obsequious
French harlequin is an entirely national mask. In
the Vaudeville theatre, he is silent, with a black half
mask, and reminds one, throughout the representa-
tion, of the grace and agility of the cat. (See *Carlin*.)
In Britain, he became a lover and a magician; and,
in exchange for the gift of language, of which he
was there deprived, he was invested with the wonder-
working wand, from the possession of which, Mr
Douce pronounces him to be the "illegitimate suc-
cessor of the old Vice" (On Shakspeare, i. 458).—
(See *Punchinello*.) A standing grotesque character,
on the German stage, was called *Hanswurst* (Jack-
Pudding), and answered to the Dutch Pickled-Her-
ring, the French Jean-Potage, the Italian (more
properly Neapolitan) Maccaroni, and the English
Jack-Pudding. This family was a race of gourmands,
clowns, coarse and rude in their wit.

HARLEY, Robert; earl of Oxford, and earl Mor-
timer, a distinguished minister of state, in the reign
of queen Anne. He was born in London, in 1661,
and was the son of sir Edward Harley, a Hereford-
shire gentleman, who had been an active partisan of
the parliament during the civil war. The subject of
this article, though of a Presbyterian family, adopted
tory principles in politics, and joined the high church
party. In the reign of William III., he acted with
the whigs; but, after the accession of Anne, he, as
well as his more celebrated colleague, St John, after-
wards lord Bolingbroke, deserted the party with
which they had acted, and became leaders of the
tories. Harley was chosen speaker of the house of
commons in 1702, and afterwards was secretary of
state. He resigned his post in 1708. The cabals of
their political opponents having effected the removal
of the duke of Marlborough and his friends from
office, Harley was nominated a commissioner of the
treasury and chancellor of the exchequer, in 1710.
In 1711, Harley was raised to the peerage, and con-
stituted lord high treasurer. After the peace of
Utrecht, in 1713, the tory statesmen, having no longer
any apprehensions of danger from abroad, began to
quarrel among themselves; and the two chiefs, Ox-
ford and Bolingbroke, especially, became personal
and political foes, actuated by different views and
sentiments. The former resigned the treasurership
just before the death of the queen in 1714. Whatever
projects may have been formed by others of the party,
there seems to be no ground for believing that lord
Oxford had engaged in any measures to interrupt the
Protestant succession. Early in the reign of George
I., he was, however, impeached of high treason by
the house of commons, and was committed to the
Tower. He remained in confinement till June, 1717,
when, at his own petition, he was brought before the
house of peers, and, after a public trial, acquitted of
the crimes laid to his charge. The rest of his life
was spent in adding to his literary stores, in the col-
lection of which he expended a considerable portion
of the wealth which his public employments had
enabled him to accumulate. He died May 21, 1724.
His patronage was extended to Swift, Pope, and
other literary men. Lord Oxford published an Essay
on Public Credit; an Essay upon Loans; and a Vin-
dication of the Rights of the Commons of England.
He was succeeded in his titles by his son Edward,
who augmented the collection of printed books and
manuscripts formed by his father. On the death of
the second earl of Oxford, in 1741, the library of
printed books was sold to Osborne, a bookseller, who
published a catalogue of them, compiled by William
Oldys and Samuel Johnson (4 vols., 8vo, 1743). The
MSS. are preserved in the British museum, where
they form the *Bibliotheca Harleiana*.

HARMATTAN; a wind which blows periodically
from the interior parts of Africa, towards the Atlan-

tic ocean. It prevails in December, January, and February, and is generally accompanied with a fog or haze, that conceals the sun for whole days together. Extreme dryness is the characteristic of this wind; no dew falls during its continuance, which is sometimes for a fortnight or more. The whole vegetable creation is withered, and the grass becomes, at once, like hay. The human body is also affected by it, so that the skin peels off; but it checks infection, and cures cutaneous diseases.

HARMODIUS. See *Hippias* and *Aristogiton*.

HARMONIA, or HERMIONE; a daughter of Mars and Venus, the fruit of an amour, in which they were surprised by Vulcan. Her name was first used to indicate music in general. She emigrated with her husband, the Phœnician Cadmus, into Greece, where she is said to have introduced music.

HARMONICA, or ARMONICA, is a name which doctor Franklin has given to a musical instrument constructed with drinking glasses. It is well known that a drinking glass yields a sweet tone, by passing a wet finger round its brim. Mr Pockrich, of Ireland, was the first who thought of playing tunes formed of these tones. He collected a number of glasses of different sizes, fixed them near each other on a table and tuned them by putting into them water, more or less, as each note required. Mr Delaval made an instrument in imitation, and from this instrument, doctor Franklin took the hint of constructing his *armonica*. The glasses for this musical instrument are blown as nearly as possible in the form of hemispheres, having each an open neck or socket in the middle. The thickness of the glass near the brim is about one-tenth of an inch, increasing towards the neck, which, in the largest glasses, is about an inch deep, and an inch and a half wide within; but these dimensions lessen as the size of the glasses diminishes: the neck of the smallest should not be shorter than half an inch. The diameter of the largest glass is nine inches, and that of the smallest three inches. Between these there are twenty-three different sizes, differing from each other a quarter of an inch in diameter. The largest glass in the instrument is G, a little below the reach of a common voice, and the highest G, including three complete octaves; and they are distinguished by painting the apparent parts of the glasses within side, every semitone white, and the other notes of the octave with the seven prismatic colours; so that glasses of the same colour (the white excepted) are always octaves to each other. When the glasses are tuned, they are to be fixed on a round spindle of hard iron, an inch in diameter at the thickest end, and tapering to a quarter of an inch at the smallest. For this purpose, the neck of each glass is fitted with a cork, projecting a little without the neck. These corks are perforated with holes of different diameters, according to the dimension of the spindle in that part of it where they are to be fixed. The glasses are all placed within one another; the largest on the biggest end of the spindle, with the neck outwards; the next in size is put into the other, leaving about an inch of its brim above the brim of the first; and the others are put on in the same order. From these exposed parts of each glass the tone is drawn, by laying a finger upon one of them as the spindle and glasses turn round. The spindle, thus prepared, is fixed horizontally in the middle of a box, and made to turn on brass gudgeons at each end by means of a foot-wheel. This instrument is played upon by sitting before it, as before the keys of a harpsichord, turning the spindle with the foot, and wetting the glasses, now and then, with a sponge and clean water. The fingers should be first soaked in water, and rubbed occasionally with fine chalk, to make them catch the glass, and bring out the tone more readily. Different parts may be played together by using both hands; and the tones are best drawn out when the glasses turn from the ends of the fingers, not when they turn to them. The advantages of this instrument, says doctor Franklin, are, that its tones are incomparably sweet, beyond those of any other, and that they may be swelled or softened at pleasure, by stronger or weaker pressures of the finger, and continued to any length; and when it is once tuned, it never wants tuning again. From the effect which it is supposed to have upon the nervous system, it has been suggested that the fingers should not be allowed to come in immediate contact with the glasses, but that the tones should be produced by means of a key, as upon the harpsichord. Such a key has been invented in Berlin or Dresden, and an instrument constructed on this plan. It is called the *harpsichord-harmonica*. But these experiments have not produced any thing of much value; and it is impossible that the delicacy, the swell and the continuation of the tone should be carried to such perfection as in the first mentioned method. The harmonica, however much it excels all other instruments in the delicacy and duration of its tones, yet is confined to those of a soft and melancholy character and to slow solemn movements, and can hardly be combined to advantage with other instruments. In accompanying the human voice, it throws it in the shade; and in concerts, the accompanying instruments lose in effect, because so far inferior to it in tone. It is therefore best enjoyed by itself, and can produce a charming effect, in certain romantic situations. Besides the proper harmonica, there is a pegged or nailed harmonica, the pegs of which are of steel, and, being placed in a semicircle, are played with a strung bow. This has no resemblance to the proper harmonica, except some similarity in tone.

HARMONY;

1. A town in the western part of Pennsylvania, where Rapp first settled with his Harmonists from Wurtemberg, in 1803. He afterwards removed to Indiana, but has since returned again to Pennsylvania, with his 700 followers, where he founded the village of Economy. The Harmonists are frugal and industrious, and hold their property in common.

2. A village in Indiana, on the Wabash, about twenty-five miles from its mouth, founded by Rapp. Mr Owen's society afterwards attempted to carry the new social system into execution here, but it is now broken up.

HARMONY (from the Greek); the agreement or consonance of two or more united sounds. *Harmony* is either natural or artificial. *Natural harmony*, properly so called, consists of the harmonic triad, or common chord. *Artificial harmony* is a mixture of concords and discords, bearing relation to the harmonic triad of the fundamental note. The word *harmony*, being originally a proper name, it is not easy to determine the exact sense in which it was used by the Greeks; but from the treatises they have left us on the subject, we have great reason to conclude that they limited its signification to that agreeable succession of sounds which we call *air*, or *melody*. The moderns, however, do not dignify a mere succession of single sounds with the appellation of *harmony*; for the formation of *harmony*, they require a union of melodies, a succession of combined sounds, composed of consonant intervals, and moving according to the stated laws of modulation.

HARMONY, or EVANGELICAL HARMONY, is the title of various books, composed to show the uniformity and agreement of the accounts given by the four evangelists, by reducing the events recorded in the different evangelists to the order of time in which they happened.

HARMONY, FIGURED. *Figured harmony* is that
n which, for the purpose of melody, one or more
f the parts of a composition move, during the con-
nuance of a chord, through certain notes which do
ot form any of the constituent parts of that chord.
hese intermediate notes not being reckoned in the
armony, considerable judgment and skill are neces-
ary so to dispose them that, while the ear is gratified
ith their succession, it may not be offended at their
issonance with respect to the harmonic notes.

HARMONY OF THE SPHERES; an hypothesis
f Pythagoras and his school, according to which the
otions of the heavenly bodies produced a music
nperceptible by the ears of mortals. He supposed
ese motions to conform to certain fixed laws, which
ould be expressed in numbers, corresponding to the
umbers which give the harmony of sounds. The
nmortal Kepler, in his *Harmonices Mundi*, endea-
ours to apply the Pythagorean ideas on numbers and
usical intervals to astronomy, and in this work, as
lso in his *Prodromus*, sets forth eternal laws respect-
ng the distances of the planets, which were not fully
ppreciated, until Newton, a long time after, showed
heir importance and connexion. It is in the *Har-
onices Mundi, proëmium* to the 5th book, *De Mo-
ibus Planetarum*, that Kepler, in his enthusiasm,
ronounces these bold words concerning his disco-
ery: "Eighteen months ago, I saw the first ray of
ght; three months since, I saw the day; a few days
go, I saw the sun himself, of most admirable beauty.
othing can restrain me; I yield to the sacred frenzy.
dare ingenuously to confess, that I have stolen the
olden vessels of the Egyptians (alluding to the ideas
f Ptolemy on the same subject), and will build of
hem a tabernacle to my God. If you pardon me, I
ejoice; if you reproach me, I can endure it; the
ie is thrown. I write a book to be read; whether
y the present or future ages, it matters not. It can
ait for a reader a century, if God himself waited six
hou-and years for an observer of his works."* To
nderstand this enthusiasm fully, we must recollect
he erroneous ideas with which the world had teemed
om the time of Ptolemy.

HARMONY, PRE-ESTABLISHED. See *Leibnitz*.

HARMOTOME, or CROSS STONE; the name
f a substance curious in mineralogy, on account of
he cruciform figure of its crystals, and the peculiar-
y of its composition. It sometimes occurs in right
ectangular prisms terminated by four rhombic planes,
orresponding to the solid angles of the prisms; but
ore frequently in twin-crystals formed by the inter-
ection of two flattened prisms at right angles to each
ther, and in such a manner that a common axis and
umination is formed. The crystals yield to cleav-
ge parallel to the planes and both diagonals of a
ight rectangular prism, which is their primary form.
s prevailing colour is white; it is translucent or
emi-transparent, with a somewhat pearly lustre, and
ard enough to scratch glass. Specific gravity 2·392.
t consists of silex 49·00, alumine 16·00, barytes
8·00, and water 15·00. It chiefly occurs in metal-
ferous veins, as at Andreasberg, in the Harts, and
t Strontian in Scotland. It has also been found in
mygdaloid at Oberstein.

HARNESS. See *Mail*.

HAROLD I., Harfagar (fair-haired); king of
orway, son of Hafdan the Black; one of the great-
st monarchs of that country. At the time of his
ther's death (863), he was in the Dofrefield moun-
tains, and had already evinced great talent and per-
sonal prowess in several battles. Love made him a
conqueror. He had offered his hand to Gida, the
daughter of a neighbouring king; but the proud
beauty replied to Harold's ambassadors, that she
would only consent to become his wife when he had
subjected all Norway. Harold swore he would not
cut his hair till he had accomplished Gida's desire,
and, in ten years, succeeded in obtaining sole posses-
sion of Norway. In the mean time, his hair had
grown long and beautiful, from which circumstance
he derived his surname. While he reduced the lesser
kings, he left them, with the title *jarl*, the adminis-
tration of their territories, and the third part of their
income; but many of them emigrated and founded
Norwegian colonies. Hrolf, or Rollo, emigrated to
Neustria (France). Others, with their followers,
established themselves in Iceland, the Shetland Isles,
Faroe and the Orcades, some of which were then unin-
habited. When Harold found that the emigrants often
extended their incursions into his dominions, he em-
barked, with a naval force, to subdue them. After
a bloody war, he conquered the Orcades, &c., and re-
turned home. He fixed his residence at Drontheim,
and died there in 930, after having raised his country
to a prosperous state, by wise laws and the encour-
agement of commerce.

HAROLD I., surnamed *Harefoot*, king of Eng-
land, succeeded his father, Canute, in 1035, notwith-
standing a previous agreement, that the sovereignty of
England should descend to the issue of Canute by his
second wife, the Norman princess Emma. His coun-
trymen, the Danes, maintained him upon the throne
against the efforts of earl Godwin, in favour of Har-
dicanute; but, Harold gaining over that leader by
the promise of marrying his daughter, a compromise
was effected, and they united to effect the murder of
prince Alfred, son to Ethelred II. After a reign of
four years, in which nothing memorable occurred,
Harold died, in 1039.

HAROLD II., king of England, was the second
son of Godwin, earl of Kent. He succeeded his
father in his government and great offices, and, upon
the death of Edward the Confessor, in 1066, stepped
without opposition into the vacant throne, without
attending to the more legal claim of Edgar Atheling,
or the asserted bequest of Edward in favour of the
duke of Normandy. The latter immediately called
upon him to resign the crown, and, upon his refusal,
prepared for invasion. He also instigated Harold's
brother, Tosti, who had retired in disgust to Flan-
ders, to infest the northern coasts of England, in con-
junction with the king of Norway. The united fleet
of these chiefs sailed up the Humber, and landed a
numerous body of men, who defeated the opposing
forces of the earls of Northumberland and Mercia,
but were totally routed by Harold, whose brother,
Tosti, fell in the battle. He had scarcely time to
breathe after his victory, before he heard of the land-
ing of the duke of Normandy at Pevensey, in Sussex.
Hastening thither, with all the troops he could mus-
ter, a general engagement ensued at Hastings,
October 14, 1066, in which this spirited prince, after
exerting every effort of valour and military skill, was
slain with an arrow; and the crown of England was
the immediate fruit of William's victory.

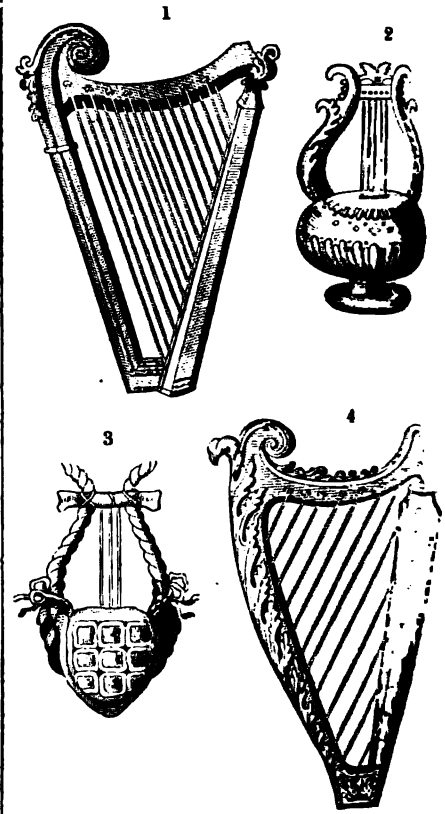
HAROUN, or AARON AL RASHID, a cele-
brated caliph of the Saracens, was the second son of
the caliph Mahadi. He succeeded his elder brother,
Hadi, in the caliphate A. D. 786, and was the most
potent prince of his race, ruling over territories ex-
tending from Egypt to Korasan. He obtained the
name of Al Rashid, or the Just, but his claim to the
title must be regarded with considerable allowance
for Eastern notions of despotic justice. One of his

* *Si ignoscitis, gaudebo; si succensetis, feram; jacto en
leam, libramque scribo, seu presentibus seu posteris legen-
um, nihil interest; expectet ille suum lectorem per annos
entum; si Deus ipse per annorum sena millia contempla-
rem præstolatus est.* Joannis Keplerl Harmonices Mundi,
libri v., *Lincii, Austriæ*, MDCXIX.

noblest qualities was his love of learning and science. He caused many Greek and Latin authors to be translated and dispersed throughout his empire, and made his subjects acquainted with the Iliad and the Odyssey. He eight times invaded the Greek empire, and, on the refusal of the emperor Nicephorus in 802, to pay tribute, addressed to him a singularly arrogant epistle, and followed it up by an irruption into Greece, which ended in the defeat of Nicephorus, who was obliged to pay an augmented tribute, and agree not to rebuild Heraclea and the other pillaged and dilapidated frontier towns. During these transactions, the ruin of the family of the Barmecides exemplified the despotic rigour of Haroun's character. Yahia, the head of it, had superintended his education; and of his four sons, the eldest was a successful general; the second, the caliph's prime vizier, Giaffer; and the third and fourth in dignified stations. The generosity, munificence, and affability of the Barmecides, rendered them the delight of all ranks of people; and Giaffer was so much in his master's graces, that the caliph, in order to enjoy his company in the presence of his sister Abassa, to whom he was equally attached, formed a marriage between the princess and vizier, but with the capricious restriction of their forbearing the privileges of such an union. Passion broke through this unjust prohibition, and the caliph, in his revenge, publicly executed Giaffer, and confiscated the property of the whole family. Haroun attained the summit of worldly power and prosperity, and the French historians mention a splendid embassy which he sent to Charlemagne, which, among other presents, brought a magnificent tent, a water-clock, an elephant, and the keys of the holy sepulchre at Jesusalem, implying a permission for European pilgrims to visit it. Haroun was seized with a mortal distemper, while on the point of marching to put down a rebellion in the provinces beyond the Oxus; and, retiring to Tous, in Korasan, expired in the forty-seventh year of his age, and twenty-third of his reign. The popular fame of this caliph is evinced by the Arabian Nights' Entertainments, in which Haroun, his wife Zobeide, his vizier Giaffer, and his chief eunuch Mesrour, are frequent and conspicuous characters.

HARP; a stringed instrument, consisting of a triangular frame, and the chords of which are distended in parallel directions from the upper part to one of its sides. Its scale extends through the common compass, and the strings are tuned by semitonic intervals. It stands erect, and, when used, is placed at the feet of the performer, who produces its tones by the action of the thumb and fingers of both hands on the strings. The ancients had a triangular instrument, called *trigonum*, corresponding somewhat to our harp. Some authors say that it came originally from the Syrians, from whom the Greeks borrowed it. The ancient *sambuca* is believed by some to correspond to the harp. Some writers say that the harp came to us from the nations of the north of Europe, in whose languages they trace its etymology. Papias and Du Cange assert that the harp derives its name from the *Arpi*, a people of Italy, who invented it; but Galileo maintains that the Italians received it from the Irish. Whatever may have been its origin, its invention is very ancient. It was known to the Egyptians, as appears from the travels of Bruce and Denon. The four harps of which the latter traveller has given drawings, are almost the same in shape as ours. The two first having twenty-one strings, the third eighteen, and the fourth only four. The designs are from the paintings found in the tombs of the kings, in the mountain west of Thebes. The Hebrews, the Greeks, and the Romans appear to have made particular use of this instrument.

The following cuts represent four several species of harps used by the ancient Hebrews. Fig. 1. represents the ancient Cithra or Harun; Fig. 2. is the representation of a harp from the medals of Simon Maccabeus; Fig. 3. is the Kinnor; and Fig. 4. the Nablum or Psaltery.



The ivory harp, with seven strings, belonged to the Greeks, who, however, neglected it. The Romans preserved the use of it a long time in sacrifices. The harp was much played in France in the time of chivalry. The Anglo-Saxons excelled in playing on the harp, which they generally accompanied with the violin and the cornicinus. The ancient Irish, Scots, and Welsh also made much use of this instrument, and the harp figures conspicuously in the arms of Ireland. The Anglo-Normans also were skilful performers on this instrument. Strutt, in his England, Ancient and Modern, has given drawings of the harps used by the people of the north about the ninth century. They are triangular, like ours, but have only ten or twelve strings. In the thirteenth century, the harp had only seventeen strings, as appears from a manuscript of the time, cited and analysed by Lebeuf (*Mem. de l'Academie des Inscript.*, tom. xx. pag. 377). No instrument has received greater improvement from modern artists than this. In its present state, while it forms one of the most elegant objects to the eye, it produces some of the most agreeable effects to the ear, of any instrument in practice.

In the modern harp there are commonly thirty-five strings, but sometimes the number is extended to forty-three. The compass usually extends from double A of the bass clef, to double G in the treble. The command of this delightful instrument is greatly increased by the addition of seven paddles and

the foot of the performer, by which three different tes can be produced by one string.

HARP, ÆOLIAN. See *Æolian Harp.*

HARPAGUS; a Mede, minister of king Astyes, who ordered him to put Cyrus to death. As did not obey this command, Astyages invited him a banquet, at which the body of his own son was ved up before him; at least, so Herodotus tells us.

HARPE. See *Laharpe.*

HARPER, ROBERT GOODLOE, a celebrated American lawyer, was born near Fredericksburg, Virginia, poor, but respectable parents, who, while he was ry young emigrated to Granville, in North Carona. He displayed, in his boyhood, vivacity of spirit d versatility of talent, and, before the age of fifteen, ssessed the rudiments of a liberal education, a rious fund of profitable ideas, and an expertness in e use of tools, which would have made him a successful mechanic. The ardour and gallantry of his aracter prompted him, at that age, to join a troop horse, composed of the young men of the neighurhood, to which he acted as quarter-master; but s thirst for learning and intellectual culture soon inced him to withdraw from the military career, and ek some situation in which he could complete his udies. He procured admission into Princeton colge, where he taught one or two of the inferior asses, while he gained instruction and distinction the upper. About the age of nineteen or twenty, accompanied a fellow student to Philadelphia, on visit, and here formed the resolution to embark, at ce, for England, and make the tour of Europe on ot. He intended to begin with giving lessons in ondon, and to work simultaneously at the trade of joiner, for which he was qualified by his early prace. This romantic project was frustrated by ice in e Delaware, that prevented the departure of any essel during many weeks, in the course of which the outhful adventurer nearly exhausted his purse, and ad leisure to reflect upon the difficulties of the enterise. As soon as the river became navigable, he solved to sail for Charleston, and try his fortune ere, his new scheme being to study the law. He rived, after a short passage, at that city, and found imself on the wharf, a stranger to every one, with at a dollar or two in his pockets. As he stood ruminating on his condition, he was accosted by a man f respectable appearance, who asked him whether e had not taught a class at Princeton college, in hich there was a youth of a certain name; and, eing answered affirmatively, he proceeded to say at the youth was his son, who had rendered him miliar with the name of his tutor by the affectionate stimony often repeated in his letters. He professed strong desire to serve his new acquaintance, mened that he kept a tavern, and offered him any sistance which he might require. The welcome dness was accepted: the generous friend introced him to a lawyer, under whom he prepared imself for the same profession; and, in less than a elvemonth, he undertook causes on his own acount. The hope of speedier success in his profession duced him to retire from Charleston to an interior istrict; and in this residence he first acquired some olitical consideration by a series of essays, in a newsaper, on a proposed change of the constitution of e state; and he was soon elected into the legislare. The reputation which he gained, as a speaker nd man of business, soon placed him in congress. is unnecessary to follow him, in his legislative ourse of eight or nine years, from the commencement of the French revolution to the year 1802, hen the democratic party had succeeded to the ational government. He sided with the federalists, nd zealously supported the policy and measures of Washington, of whom he was the personal friend, as he was also of Hamilton, and others of the principal federal statesmen. Many years afterwards, he collected into an octavo volume a portion of his circulars and addresses to his constituents and a few of his speeches, as they were printed while he was a representative. These attest the vigour of his faculties, the depth of his views, and the extent of his knowledge. His pamphlet, published in 1797, and entitled Observations on the Dispute between the United States and France, acquired great celebrity at home, passed rapidly through several editions in Britain, and was esteemed, over Europe, one of the ablest productions of the crisis. Soon after the downfall of the federal party, he retired from congress, and, having married the daughter of Charles Carroll of Carrolton, resumed the practice of the law, in Baltimore, where he soon became eminent in his profession. Mr Harper attended almost every session of the supreme court, from the time of its removal to Washington to that of his death, and was always listened to with respect by the court. His style of speaking was animated, neat, sufficiently fluent, and uncommonly perspicuous. Juries especially felt the combined influence of his clear, natural tones, simple, easy gesture, lucid arrangement and impressive exposition of facts, and his facility in applying general principles, and deducing motives or consequences at the exact point of time. Mr Harper did not suffer his taste for literature to languish. He was a diligent reader of belles-lettres, of history, geography, travels and statistics. He was versed in the sciences of morals and government, and was particularly well acquainted with political economy, and well knew how to use, in his public addresses, the stores with which his excellent memory readily supplied him. The federal party happening to acquire the ascendant in Maryland, Mr Harper was immediately elected, by the legislature, a senator in congress; but this position the demands of his profession obliged him soon to relinquish. The same councils bestowed upon him the rank of major-general in the militia. About the years 1819—20, he set out for Europe with a part of his family, and visited, in succession, England, France, and Italy. He was absent from home nearly two years. During the few years between his return and death, he employed himself chiefly in plans of a public character, such as the promotion of internal improvement and the colonisation of the blacks. He delighted in topographical and geographical studies; and the particular notice which he had bestowed upon African geography served, besides his philanthropic zeal, to draw him into the scheme of African colonisation. He died in 1825, aged sixty.

In private life, general Harper had signal virtues and attractions. He administered aid, praise, and sympathy wherever they were due. He lived with elegant hospitality, and enjoyed the company of the young and gay. In conversation, he excelled, perhaps, even more than he did in public speaking. He was above the middle size, well shaped, muscular, and robust; of erect, firm gait; of regular features and expressive countenance, and of active habits.

HARPER'S FERRY; a post village in Jefferson county, Virginia, at the junction of the Shenandoah with the Potomac; it is eight miles E. N. E. of Charleston, and sixty-five W. N. W. of Washington. The celebrated passage of the Potomac, at this place, is an object truly grand and magnificent. The eye takes in, at a glance, on the north side of the Potomac and Shenandoah, at their junction, an impetuous torrent, foaming and dashing over numerous rocks, which have tumbled from precipices that overhang them; the picturesque tops and sides of the mountains, the gentle and winding current of the river below the

ridge, presenting, altogether, a landscape capable of awakening the most delightful and sublime emotions. "This scene," says Mr Jefferson, "is worth a voyage across the Atlantic." There is at this place, belonging to the United States, a very extensive establishment for the manufacture of arms. It was founded in 1798, and now employs about 260 workmen. The village contains about 1000 inhabitants.

HARPIES (Ἅρπυιαι, Greek); the rapacious goddesses of storms. Their ages, appearance, names and number, are so differently given by the poets, that it is difficult to say any thing definite concerning them. They are represented, by Homer, as residing near the Erinnyes, on the ocean, before the jaws of hell, and as goddesses of storms. If any one was absent so long from home, that it was not known what had become of him, and he was supposed to be dead, it was commonly said, "The harpies have carried him off." Hesiod represents them as young virgins, of great beauty. The later poets and artists vied with each other in depicting them under the most hideous forms. One has given them the head of a hen, with wings, and a body covered with feathers, human arms, with claws, a white breast, and human legs, which terminate in the feet of a hen. Others have given them the face of a young woman, with the ears of a bear. Spanheim's work contains three representations of the harpies, from coins and works of art, with the claws and bodies of birds. The first has a coarse female face; the second, quite a feminine head, and two breasts; the third, a visage ornamented with wreaths and a head-dress. There are also other representations of them. Leclerc supposes that they are an allegorical description of the noisy flight, the destruction, the stench, and the contamination of locusts.

HARPOCRATES; the god of silence among the Egyptians; a son of Isis and Osiris. His statues represent him as holding one of his fingers on his mouth. They appear at the entrance of most of the Roman and Egyptian temples.

HARPOON. The harpoon is an instrument of iron of about three feet in length. It consists of three conjoined parts, called the *socket*, *shank*, and *mouth*, the latter of which includes the *barbs*, or *withers*. This instrument, if we except a small addition to the barbs, and some enlargement of dimensions, maintains the same form in which it was originally used in the fishery two centuries ago. At that time, the mouth, or barbed extremity, was of a triangular shape, united to the shank in the middle of one of the sides, and this, being scooped out on each side of the shank, formed two simple flat barbs. In the course of the last century, an improvement was made, by adding another small barb, resembling the beard of a fish-hook, within each of the former withers, in a reverse position. The two principal withers, in the present improved harpoon, measure about eight inches in length and six in breadth; the shank is eighteen inches to two feet in length, and four tenths of an inch in diameter; and the socket, which is hollow, swells from the size of the shank to near two inches in diameter, and is about six inches in length. To this weapon is fastened a long cord, called the *whale-line*, which lies carefully coiled in the boat, in such a manner as to run out without being interrupted or entangled. As soon as the boat has been rowed within a competent distance of the whale, the harpooner launches his instrument; and the fish being wounded, immediately descends under the ice with amasing rapidity, carrying the harpoon along with him, and a considerable length of the line, which is purposely let down, to give him room to dive. Being soon exhausted with the fatigue and loss of blood, he re-ascends, in order to breathe, where he presently expires, and floats upon the surface of the water; when the whalers approach the carcass by drawing in the whale-line. The line is sixty to seventy fathoms long, and made of the finest and softest hemp, that it may slip the easier; if not well watered, by its friction against the boat it would soon be set on fire; and if not sufficiently long, the boat would be soon overset, as it frequently is. With the harpoon, other large fish, as sturgeons, &c., are also caught. When the harpoon is forced, by a blow, into the fat of the whale, and the line is held tight, the principal withers seize the strong ligamentous fibre of the blubber, and prevent it from being withdrawn; and in the event of its being pulled out so far as to remain entangled by one wither only, which is frequently the case, then the little reverse barb, or *wither*, as it is called, collecting a number of the same reticulated sinewy fibres, which are very numerous near the skin, prevents the harpoon from being shaken out by the ordinary motions of the whale. The point and exterior edges of the barbs of the harpoon are sharpened to a rough edge, by means of a file. This part of the harpoon is not formed of steel, as it is frequently represented, but of common soft iron, so that, when blunted, it can be readily sharpened by a file, or even by scraping it with a knife. The most important part in the construction of this instrument, is the shank. As this part is liable to be forcibly and suddenly extended, twisted and bent, it requires to be made of the softest and most pliable iron.

Harpoon-Gun. The harpoon-gun is well calculated to facilitate the capture of whales, under particular circumstances, especially in calm weather when the fish are apt to take the alarm at the approach of boats within 15 or 20 yards of them. The harpoon gun was invented in the year 1731, and used by some individuals with success. Being, however, somewhat difficult and dangerous in its application, it was laid aside for many years. It has, however, subsequently been highly improved, and rendered capable of throwing a harpoon nearly forty yards, with effect; yet on account of the address which is requisite for the proper management of it, and the loss of fish which, in unskilful hands, it has been the means of occasioning, together with some accidents which have resulted from its use, it has not been so generally adopted as might have been expected. In its present improved form, the harpoon-gun consists of a kind of swivel, having a barrel of wrought iron, 24 to 26 inches in length, of 3 inches exterior diameter, and 1¼ inches bore. It is furnished with two locks, which act simultaneously, for the purpose of diminishing the liability of the gun missing fire. The shank of the harpoon fired from it is double, terminating in a cylindrical knob, fitting the bore of the gun. Between the two parts of the shank a wire ring slides freely, to which is attached the line. When the harpoon is introduced into the barrel of the gun, the ring with the attached line slides on, and remains on the outside, near the mouth of the harpoon; but, the instant that it is fired, the ring, of course, flies back against the cylindrical knob. Some harpoons have been lately made with a cone shank, similar to the common hand harpoon, to swell at the end to the thickness of the bore of the gun. The line, closely spliced round the shank, is slipped towards the mouth of the harpoon, when it is placed in the gun, and, when fired, is prevented from disengaging itself by the size of the knob at the end. For further information, see *Whale Fishery*.

HARPSICHORD; a stringed instrument, consisting of a case framed of mahogany, or walnut-tree wood, and containing the belly, or sounding-board

over which the wires are distended, supported by bridges. In the front the keys are disposed, the long ones of which are the naturals, and the short ones the sharps and flats. These keys being pressed by the fingers, their enclosed extremities raise little upright oblong slips of wood, called *jacks*, furnished with crow-quill plectrums, which strike the wires. The great advantage of the harpsichord beyond most other stringed instruments, consists in its capacity of sounding many notes at once, and forming those combinations, and performing those evolutions of harmony, which a single instrument cannot command. This instrument, called by the Italians *clavicembalo*, by the French *clavecin*, and in Latin *grave cymbalum*, is an improvement upon the clarichord, which was borrowed from the harp, and has, for more than a century, been in the highest esteem, and in the most general use, both public and private, throughout Europe; but, since the invention of that fine instrument, the grand piano-forte, the use of it has considerably diminished.

HARQUEBUSS (in the ancient statutes called also *arquebus*, *haquebut*, or *hagbut*) is a hand-gun, or fire-arm of a proper length, &c., to be borne on the arm. The word is formed of the French *arquebuse*, and that from the Italian *archibuso*, or *arco a buso* (of *arco*, a bow, and *bugio*, a hole), on account of the touch-hole, at which powder is put to prime it, and the circumstance of its having succeeded to the bows of the ancients. The harquebuss is, properly, a fire-arm, of the ordinary length of a musket or fowling-piece, locked, usually, with a wheel. Hanselet describes its legitimate length to be forty calibres, and the weight of its ball one ounce seven-eighths; its charge of powder as much. There is also a larger kind, called *arquebuse à croc*, much of the nature of our blunderbusses. This was used, in time of war, to defend places, being usually rested on something when discharged. The first time these instruments were seen was in the imperial army of Bourbon, who drove Bonnivet out of the state of Milan. They were so heavy, that two men were employed to carry them.

HARRINGTON, James, a celebrated political writer, was born at Upton, in Northamptonshire, in 1611, and was educated at Trinity college, Oxford, under the care of the celebrated Chillingworth. On the death of his father, he visited the Netherlands, where he entered lord Craven's regiment, and, being quartered at the Hague, frequented the courts of the prince of Orange and the queen of Bohemia, and accompanied the elector palatine to Denmark. He subsequently visited Germany, France and Italy; and, on his return to England, siding with the parliamentary party, in 1646, he accompanied their commissioners to Charles I. at Newcastle, and, on their recommendation, was appointed groom of the stole to the king. In this capacity, he never disguised his republican sentiments; yet he was desirous of producing an accommodation between Charles and the parliament; which is supposed to have produced his removal from the king's person. During the protectorate, he passed his time in retirement, and occupied his leisure in writing his famous work, *Oceana*; which, after some opposition on the part of Cromwell, was published in 1656. In order to propagate his opinions, he established a sort of club, or debating society, called the *Rota*, which was terminated by the restoration. Being arrested for a supposed plot against the government, of which he was entirely innocent, he was treated with great severity, and his release by habeas corpus evaded, by an arbitrary removal to St Nicholas island, near Plymouth. Here, either from distress of mind, or improper medical treatment, his faculties became impaired; which, being represented to the king by his relations led to his release. He partly recovered, and married a lady to whom he had been early attached. He died, of paralysis, in 1677, and was buried at St Margaret's, Westminster. Harrington was a profound thinker. His *Oceana*, which is a political romance, and the Utopian image of a republic, is a work of genius, thought, and invention, and is characterized by an enthusiastic love of liberty. The writings of Harrington were published (in one volume, folio) by Tindal, in 1700, and again, more completely, by Doctor Birch, in 1737.

HARRIS, a district of the Hebrides, in the shire of Inverness, comprehending the southern part of Lewis, and the small islands which surround it, of which Berneray, Calligray, Ensay, Pabbay, Taransay, Scalpay, and Scarp, only are inhabited; besides a vast number of pasture and kelp isles, holms and high rocks, which are also distinguished by particular names. The mainland of Harris is separated from Lewis by a narrow isthmus of about six miles, formed by the approximation of the two harbours of Loch Resort and Loch Seaforth. The whole length, from the isthmus to the southern end of Harris, where the sea separates it from North Uist, may be estimated at twenty-five or twenty-six miles. Its breadth is extremely various, intersected by several arms of the sea, but it generally extends from six to eight miles. Harris is again naturally divided into two districts by two arms of the sea, called East and West Loch Tarbert, which approach so near each other as to leave an isthmus of not more than a quarter of a mile in breadth. The northern district, between Tarbert and Lewis, is termed the Forest, though without a tree or shrub. Its surface is exceedingly mountainous, but the valleys contain tolerable pasturage; and some coarse grass is found growing in the interstices of the mountains. Along the eastern and western shores there are a number of creeks or inlets of the sea, most of them commodious harbours; at each of which a colony of tenants contrive, by a wonderful exertion of industry, to raise crops from a soil of the most forbidding aspect. The surface of the ground south of Tarbert is much of the same appearance as the northern district; but the hills are not so elevated, and the coasts are better adapted for culture, and consequently better peopled. From the nature of the soil, sheep are easier raised than black cattle. The manufacture of kelp used to be the staple source of support to the inhabitants, but the reducing of the duty on barilla ruined that trade, and was the occasion of much misery to the poor Highlanders. On the mainland of Harris there are many monuments of druidism, and several religious edifices, erected about the time of the introduction of Christianity into the Scottish and Pictish nations. The churches together with the smaller chapels, all seem to have depended immediately on the monastery at Rowadill, dedicated to St Clement; which, though its foundation be attributed to King David I. is generally supposed to be of more ancient date. The different branches of the family of Macleod of Macleod, and of Harris, are proprietors of the island. The mountains contain no minerals of great value, except some iron and copper ore which has been discovered: granite and freestone abound in every part. Population of the parish of Harris in 1831, 3,900.

HARRIS, James, a learned writer on philology and the philosophy of language, was born at Salisbury, in 1709. Having passed through his preliminary studies, he entered as a gentleman commoner of Wadham college, Oxford, at the age of sixteen; after which he became a probationer at Lincoln's Inn. The death of his father put him in possession of an independent fortune at the age of twenty-three; on which he retired to his native place, to dedicate his

time to classical literature. In 1744, he published a volume, containing three treatises,—On Art; on Music and Painting; and on Happiness. This was a prelude to the most celebrated of his productions, Hermes, or a Philosophical Enquiry concerning Universal Grammar. This work displays much ingenuity, and an extensive acquaintance with the writings of the Greek poets and philosophers; but the author's ignorance of the ancient dialects of the northern nations has caused him to take an imperfect survey of his subject. In 1761, he was chosen member of parliament, and held several public places. In 1775, he published Philosophical Arrangements part of a systematic work, which he had projected, as an illustration of the Logic of Aristotle. His concluding work, Philological Inquiries, was completed in 1780, but was not published till after his death (December 22, 1780). A collective edition of his works was published by his son, the earl of Malmesbury (2 vols. 4to, 1801).

HARRISBURG; an American borough in Dauphin county, and the seat of government of the state of Pennsylvania, on the east bank of the Susquehannah, over which there is here erected a covered bridge, of twelve arches. The Pennsylvania canal passes along the eastern side of the town and forms a large basin for a harbour; thirty-five miles W. N. W. Lancaster, ninety-six W. by N Philadelphia. Population, in 1820, 2990; in 1830, 4307; and, including the adjoining village of Macclaysburg, 4526. Fifty years since, Harrisburg was a wilderness, inhabited by Indians.

HARRISON, John; a skilful mechanic, celebrated as the inventor of the time-keeper for ascertaining the longitude at sea, and also of the gridiron-pendulum. He was born at Foulby, near Pontefract, in Yorkshire, in 1693, and was the son of a carpenter or builder, who brought him up to the same occupation. Before he had attained the age of twenty-one he found out, without instruction, how to clean clocks and watches, and made two clocks, chiefly of woodwork. In 1735, he executed his first machine for determining the longitude at sea, the merit of which he proved in a voyage to Lisbon. In 1739, he completed a second, and, in 1749, a third machine, which erred only three or four seconds in a week. He then turned his attention to the improvement of pocket watches, in which he succeeded so well, that he was induced to make a fourth machine, or time-keeper, in that form, which he finished in 1759. This chronometer, in two voyages, having been found to correct the longitude within the limits required by the act of parliament of the twelfth of queen Anne, Harrison applied for the proposed reward of £20,000, which he received. This ingenious artist employed the latter part of his life in constructing a fifth improved time-keeper, on the same principle. This, after a ten weeks' trial, was found to have erred only four and a half seconds. He died in 1776. He was the author of a tract, entitled a Description concerning such Mechanism as will afford a nice or true Mensuration of Time (1775, 8vo).

HARROW-ON-THE-HILL; a village in Middlesex, ten miles N. W. from London, situated on the highest hill in the county, and commanding one of the finest prospects of the metropolis on the east. It is famous for its free school, founded in the reign of Elizabeth, by John Lyon, and still considered one of the first in the kingdom. Population of the parish, 3861. Doctor Parr, Sir William Jones, Sheridan, Byron, earl Spenser, Sir Robert Peel, &c., were educated there.

HARROWGATE, a village of Yorkshire, 211 miles N. N. W. from London, usually called High Harrowgate, from its situation, in contradistinction to to a neighbouring place, named Low Harrowgate. It owes its sole importance to mineral springs, strongly impregnated with steel, sulphur, and much frequented for medicinal purposes. There are different wells, varying in their peculiar properties. The first or old Spa, in Knaresborough Forest, about three miles from the town of that name, was discovered by Captain Slingsby, in 1620; and a handsome dome was erected over the well, in 1786, at the expense of the earl of Rosslyn. It is a powerful chalybeate, which may be used with advantage, in diseases accompanied with debility; there are two other chalybeate springs, called the Allum Well, and the Sulphur Well. The most noted of the mineral springs is the sulphureous well, which is of more recent discovery than the preceding. It is distinguished by a strong hepatic odour, arising from the presence of hydro-sulphurous gas, thrown off in part as the water rises, sparkling with air-bubbles, like soda water. It tinges silver of a dark purple color, leaves a black precipitate on standing, and a part of the sulphur which it contains rises to the surface. Its taste is nauseous, though it is sometimes administered internally in dyspeptic, dropsical, and scrofulous complaints; but it is chiefly employed externally in bathing, in cases of rheumatism, palsy, scorbutic and cutaneous diseases, in the cure of which it seems to possess considerable efficacy. The usual season for bathing is from May to the end of September, and there are several inns and houses for the accommodation and entertainment of visiters.

HARSDORFER, George Philip, a distinguished scholar and poet of the seventeenth century, lived from 1607 till 1658. He was descended from a patrician family in Nuremberg, travelled through Holland, England, France and Italy, and acquired so much knowledge of languages, that he was called the *learned*. He was also a member of the high council at Nuremberg. His German and Latin works, historical and literary fill forty-seven volumes. Yet he was neither a profound scholar nor a poetical genius. His best songs are to be found in his *Frauenzimmergesprächen* (Nuremberg, 1642, 8 vols.). With his friend and poetical companion, John Klai (Clajus), who was born at Meissen, 1616, and died (1656) at Kitzingen in Franconia, where he was a preacher, he instituted at Nuremberg, in 1644, the Order of Flowers, or Society of Shepherds of the Pegnitz, which is yet in existence. The purity of the German language was the object of this society, which numbered princes and distinguished scholars among its members. Klai's poems are partly in the collection published by the Shepherds of the Pegnitz, and have been partly published by themselves.

HARTFORD; a city of America in Hartford county, and the semi-capital of Connecticut, on the west bank of Connecticut river, fifty miles above the mouth, and 100 W. S. W. of Boston; lon. 72° W.; lat. 41° 46′ N.: population in 1830, 9789. It has a pleasant and advantageous situation at the head of sloop navigation, and is surrounded by a fine and beautiful country. Hartford was first settled by the English in 1635. Washington college, an institution under the direction of the Episcopalians, was established here in 1826. It is very pleasantly situated, and has a president, eight professors, about eighty students, and a library of 5000 volumes.

The American Asylum for the education and instruction of the deaf and dumb, at Hartford, owes its origin to the success which attended the efforts of the reverend Thomas H. Gallaudet, to give instruction to the deaf and dumb daughter of a gentleman of this city. The attention of people being excited, it was discovered that there were more than a hundred deaf and dumb in Connecticut; and Mr Gallaudet was induced

o undertake the establishment of an institution at lartford for their relief, having previously stipulated or means of personally examining the European institutions for the relief of persons thus afflicted. Mr allaudet embarked for Europe in May, 1815. He eturned in August, 1816, accompanied by Mr Laurnt Clerc, a distinguished pupil of the abbé Sicard. he course of instruction commenced, with seven upils, in April, 1817, and, in 1829, there were 143 upils in the institution, under the care of Mr Gallaudet and nine assistant instructors. One great obect, that the asylum has aimed to accomplish, is, he diffusion of a uniform system of instruction hroughout the Union, and to satisfy candid and inelligent minds, that experience in teaching the deaf nd dumb, as in all other pursuits, mechanical or inellectual, is of primary importance. Its efforts, in his respect, have met with great success. It has urnished the Pennsylvania institution, at Philadelhia, with its present principal and two assistant eachers; it afforded instruction to the principals of he two institutions in Kentucky and Ohio; and the rincipal of the one at Canajoharie, in the state of lew York, himself deaf and dumb, was one of its arliest pupils. In addition to these institutions, ll of which have derived their system of instruction rom the American asylum, there is but one other in he United States,—that in the city of New York. Among the 318 pupils, who have been members of he asylum, consisting of 178 males and 140 females, 34 were born deaf; 154 lost their hearing in infancy nd childhood; and of thirty no certain information ould be procured. Among the causes of this caamity, were the following: fevers, more particularly he spotted fever; canker rash; measles; inflammaion of the brain; dropsy in the head; small pox; ooping cough; palsy; in one instance, discharge of annon; and sudden falls. In only two cases has ither of the parents of the pupils been deaf and umb; and, in each of these, it was the father; hile, among several instances of marriage that have ome to the knowledge of those connected with the sylum, where either one or both of the parties were eaf and dumb, their children were in possession of ll their faculties. The physiology of the deaf and umb is a subject of the most curious kind, and, if horoughly investigated, might shed much additional ght upon that of our species in general. It would erve very much to promote this object, if the clergy nd the physicians, in their respective towns, would stitute inquiries on this subject. The result of such nquiries could be communicated to some of the ublic ecclesiastical or medical associations, and hence transmitted, free of expense, to the officers of he asylum. If a single association would commence nquiries of this kind, on some well digested, regular lan, it would soon be more generally, and, it is to e hoped, at length universally, adopted. Among hese inquiries, the following are the most important: he sex, age, place of nativity and residence of the ndividual; whether the deafness is owing to some riginal defect, or was produced by disease or accient, and, if so, in what way, and at what time; whether there are other cases of deafness in the same amily, or among any of the ancestors or collateral ranches of kindred, and how and when produced; if a part of the children hear and speak, and a part re deaf and dumb, what is the order of their ages; whether the deafness is total or partial, and, if artial what kind of sounds can be heard, and to what xtent; whether any medical means have been emloyed to remove it, and the result; whether the inividual can utter any articulate sounds, and to what xtent; whether any instruction has been given, and ith what success; whether the individual has been taught any mechanical art or trade, or is engaged in any regular occupation; if married, to whom, to a deaf and dumb person, or to one who can hear and speak, and, if there are children, whether they are in possession of their faculties; what are the circumstances of the individual, or of the parents or friends, and, more particularly, whether they are able to furnish the means of education at some institution for the deaf and dumb. With regard to the course of instruction pursued in the American asylum, we will only add to what has already been said in the article *Deaf and Dumb*, that the period, for which pupils are sent to the asylum, does not usually exceed four years; and, in this time, it is expected that they will receive sufficient instruction for all the useful purposes of life, and also that amount of religious knowledge, with which, as immortal beings, it is of essential importance that they should be made acquainted. A moment's reflection will show the difficulty of the task imposed on the instructor. Other children have to pass through a much longer course of instruction, counting from the time when they first begin to learn their letters, before they acquire what is termed a common education. In the four years, however, besides being taught the prominent facts and leading truths of the Bible, the pupils generally acquire the ability to read books in an easy and familiar style, and to express their thoughts intelligibly in writing; and they make some progress in arithmetic, geography, the outlines of history, orthography, and the practical part of grammar. The male pupils also acquire some mechanical art.

HARTLEY, David, an English physician, principally celebrated as a writer on metaphysics and morals, was born in 1705. At the age of fifteen, he was sent to Jesus college, Cambridge, of which he became a fellow. He engaged in the study of medicine, and practised as a physician in Nottinghamshire, and, subsequently, in London. When Mrs Stephens, a female empiric, professed to have found out a specific for the stone, doctor Hartley contributed towards her obtaining the grant of £5000 from parliament for her discovery. He spent the latter part of his life at Bath, and died there, Aug. 28, 1757. His fame as a philosopher and a man of letters depends on his work entitled Observations on Man (1749, 2 vols., 8vo). This treatise exhibits the outlines of connected systems of physiology, mental philosophy, and theology. His physiology is founded on the hypothesis of nervous vibrations. The doctrine of association, which he adopted and illustrated, explains many phenomena of intellectual philosophy; and this part of Hartley's work was published by Dr Priestley, in a detached form, under the title of the Theory of the Human Mind (8vo).

HARTLEY, David; distinguished as a politician and an ingenious projector. He was for some time a member of parliament, and uniformly displayed liberal views. His steady opposition to the war with the American colonies, led to his being appointed one of the plenipotentiaries to treat with doctor Franklin, at Paris; and some of his letters on that occasion were published in the correspondence of that statesman, in 1817, and are contained in the Diplomatic Correspondence of the American Revolution (Boston, 1831). In the house of commons, Hartley was one of the first promoters of the abolition of the slave-trade. This benevolent philosopher died at Bath, Dec. 19, 1813, aged eighty-four.

HARTSHORN; the horns of the common male deer, to which many very extraordinary medicinal virtues were attributed; but the experience of late years gives no countenance to them. The horns are of nearly the same nature as bones, and the preparations from them by heat are similar to those from

solid animal substances in general; so that the articles denominated *spirit of hartshorn* and *salt of hartshorn*, though formerly obtained only from the horns of different species of deer, are now chiefly prepared from bones. The former of these, which is a volatile alkali of a very penetrating nature, is an efficacious remedy in nervous complaints and fainting-fits; and salt of hartshorn has been successfully prescribed in fevers. The scrapings or raspings of the horns, under the name of *hartshorn shavings*, are variously employed in medicine. Boiled in water, the horns of deer give out an emollient jelly, which is said to be remarkably nutritive. Burned hartshorn is employed in medicine. The horns of the stag are used, by cutlers and other mechanics, for the handles of knives and cutting instruments of different kinds.

HARTZ; the most northerly mountain chain of Germany, from which an extensive plain, interrupted only by some inconsiderable hills, stretches to the North sea and the Baltic. The Harts, though surrounded by a low range of hills, forms a separate mountainous chain, seventy miles in length and twenty to twenty-eight miles in breadth. The Harts, properly speaking, commences in the east, in Mansfeld, passes through Anhalt-Bernburg, the counties of Stolberg, Hohenstein and Wernigerode, a part of Halberstadt and Blankenburg, Brunswick-Wolfenbuttel and Grubenhagen, and terminates on the west, at the town of Seesen, comprising an extent of 1350 square miles, and embracing forty towns and numerous villages, with 56,000 inhabitants, belonging principally to Hanover. The Harts is divided into the Upper and Lower, in a double sense. In the wider sense, the Brocken, the loftiest summit of the chain, forms the line of separation. The Upper Harts lies west of the Brocken, and is the most elevated, extensive, and rich in minerals; the Lower Harts lies on the east of the Brocken, and is superior in the beauty of its scenery. The same summit is also the dividing point of the rivers; those on the east empty into the Elbe; those on the west, into the Weser. There are several ranges of mountains in Germany, that are much higher than the Harts; as, for instance, the German Alps, the Riesengebirge and the Schwartswald (Black Forest). The Brocken, the highest summit of the Harts, is 3489, or, according to some accounts, 3435 feet high; next to this are the Bruchberg (2755 feet), the Wormberg (2667 feet), and the Ackermannshohe (2605 feet). That part of the Harts which includes the Brocken, with the neighbouring high summits, consists entirely of granite; then come the hills of the second rank, formed of greywacke, in which the ores are chiefly found; at their foot lie the Flœts hills, known under the name of the *Vorhartz*. The climate, particularly of the Upper Harts, is cold. The frost continues till the end of May, and appears early in September, accompanied by snow; and even in June, night frosts are not uncommon. The warm weather lasts only about six weeks, and the snow upon the highest peaks seldom disappears before June; fires are kept up, even in mid-summer. The Harts is wooded throughout, even to the top of the Brocken (the Hanoverian part alone contains 286,363 acres of forest). On the Brocken itself stand firs dwindled into dwarf trees. Upon the less lofty hills, several sorts of deciduous trees are found intermingled with the evergreens, and the Flœts hills are covered with the finest oaks, beech, and birch. The hills also abound in wild berries, in truffles and mushrooms, in medicinal plants, Iceland moss, and fine pastures; and in summer, immense herds of neat cattle, sheep, goats and horses graze here. In the Upper Harts, little grain is raised, except oats; in the Lower Harts, the productions are more various. The woods furnish a great quantity of game, such as stags, roe-backs, foxes, wild boars, wild cats, &c. But the wealth of the Harts consists in its forests and valuable mines. The latter furnish some gold (on account of its rarity, ducats were formerly coined, with the inscription *Ex auro Hercynio*); in the Rammels-berge, great quantities of silver, iron, lead, copper, zinc, arsenic, manganese, vitriol, granite, porphyry, slate, marble, alabaster, &c. The gross produce of the Hanoverian mines is but little over the expenses; but they support the greatest part of the inhabitants of the Harts. The towns of the Upper Harts are entirely open. In addition to the establishments for carrying on the mines, the objects of curiosity in the Harts are the Brocken, with its prospect; the horse-tract (*Rosstrappe*), the wildest and most beautiful part of the Harts, near the village of Thale; the different caves, as those of Baumann, Biel, Schwartzfeld, the romantic Selkenthal, with the Maiden's Leap, and the Bath of Alexis; the wild Ockerthal, &c. A wide plain on the summit of the Brocken, is the place of the annual rendesvous of all the witches and spirits of Germany, of which Goethe has made such a noble use in his *Faust*. It is on the Brocken, also, that the wild huntsman of the Harts is supposed to dwell. The spectre of the Brocken is an image of the spectator, of a magnified and distorted shape, reflected from an opposite cloud under particular circumstances. See the *Taschenbuch für Reisende in den Hartz*, by Gottschalk (2d edit., Magdeburg, 1817).

HARVEY, William, an English physician, celebrated as the discoverer of the circulation of the blood, was born at Folkstone, in Kent, April, 2, 1578, and, in 1593, removed to Caius college, Cambridge. At the age of nineteen, he went abroad for improvement, and, after visiting France and Germany, he staid some time at the university at Padua, where Fabricius ab Aquapendente, and other eminent men, were professors of the medical sciences. He took the degree of M. D. in 1602, and, returning to England, obtained a similar distinction at Cambridge. Having settled in London, in 1604 he was admitted a licentiate of the college of physicians, and three years after, a fellow. In 1615, he was appointed to read lectures at the college, on anatomy and surgery; and, in the course of this undertaking, he developed the discovery which has immortalised his name. It was not till 1620, that he gave publicity to his new doctrine of the circulation of blood, by his treatise entitled *Exercitatio anatomica de Motu Cordis et Sanguinis in Animalibus*. In a prefixed address to the college of physicians, he observes, that he had frequently, in his anatomical lectures, declared his opinion concerning the motion of the heart and the circulation of the blood, and had, for more than nine years, confirmed and illustrated it by reasons and arguments grounded on ocular demonstration. It speedily excited the attention of anatomists in every European school of medicine; and the theory of Harvey having been triumphantly defended against all objections, attempts were made to invalidate his claim to the discovery; but it is now admitted, that whatever hints may be found in the writings of his predecessors, Harvey first clearly demonstrated the system of sanguineous circulation, and thus produced one of the greatest revolutions in medical science. Harvey was appointed physician extraordinary to James I. and, in 1632, physician in ordinary to king Charles, by whom he was much esteemed. Adhering to the court party, on the occurrence of hostilities, he attended his majesty on his removal from London. He was with him at the battle of Edgehill, and afterwards at Oxford, where, in 1642, he was incorporated M. D. In 1651, he published his *Exercitationes de Generatione Animalium* (4to.). This curious work

ould have been still more interesting, had not the lunder of the author's museum, while he was in the ing's service, deprived him of the fruits of some of is anatomical researches, especially those relative o the generation of insects. He presented to the ollege of physicians his paternal estate of £56 a ear, for the institution of an annual festival and other urposes. In his old age, he was subject to distress- g attacks of the gout, which imbittered his exist- nce so much, that he is said to have shortened his fe with a dose of opium. He died June 3, 1658. splendid edition of his works was published in one olume, 4to, with an account of his life, by doctor awrence.

HARWICH; a seaport of England, on a peninsu- ar point of land on the Essex coast, 71 miles N. E. ondon; lon. 1° 17′ E.; lat. 51° 57′ N. It is the ort from which the packets sail regularly, in time f peace, for Holland and Germany; the seat of a avy-yard, and also a considerable bathing place. wo light-houses have lately been erected on the larwich side, to facilitate the entrance by night. he harbour is of great extent, and forms, united to he bay, a roadstead for the largest ships of war, and r an immense number of vessels at a time, upwards f 300 sail having anchored with ease. Population, 297.

HASDRUBAL; the name of several distinguished arthaginians; among others, of the brother of Han- ibal. (q. v.)

HASENCLEVER, Peter, a distinguished merchant, as born at Remscheid, in the duchy of Berg, in 716. In 1748, he established himself at Lisbon, nd afterwards at Cadiz, whence he returned to Ger- any, and had a great influence in promoting the anufacture of linen in Silesia. Frederic the Great sed to ask his advice in important commercial af- irs. In 1761, he returned to Cadiz, and, though a rotestant, was the intimate friend of Velasques, the rand inquisitor. He afterwards established a com- any in London, for exporting hemp, potash, and on to North America, which was connected, in 1765 ith a house at New York, where he built a great any vessels. The speculations of his partner hav- g caused the bankruptcy of the firm, he went to urope, but soon after returned to America. He en settled in Landshut in Silesia, where he carried n an important linen trade. He died there in 793.

HASSE, John Adolphus, chapel-master of Au- ustus, king of Poland and elector of Saxony, one of e most eminent musical composers of the eighteenth entury, was born at Bergedorf, near Hamburg 1699). His extraordinary talents were soon ob- rved by Konig, afterwards poet laureate to the king f Poland, who recommended him as tenor singer for e Hamburg opera, where the celebrated Kaiser as then composer. His masterpieces served as odels for Hasse, who, in the course of four years, ecame distinguished as a musician and singer. He rought out his first opera, *Antigonus*, which was ceived with great applause, in 1723. To perfect mself in counterpoint, he determined to study in e of the celebrated Italian schools. In 1724, he ent to Italy, and studied at Naples under Porpora. carlatti was so pleased with his talents and modesty, at he voluntarily offered him his instruction, and illed him his son. An opera which he set to music r the theatre royal, was the foundation of his repu- tion, and procured him from the Italians the title *il caro Sassone*. All the theatres of Italy con- nded for the honour of having him as leader of the chestra. He went to Venice, in 1727, where his ture wife, Faustina Bordoni, was at that time in e bloom of her beauty, and the object of universal admiration. Having once heard Hasse play upon the harpsichord, she immediately fell in love with him. He was here appointed chapel-master in the *conservatorio degli incurabili*. His reputation now procured him the situation of chapel-master at Dres- den, with a yearly salary of 9000 dollars for himself and wife; but as he was pressed to remain in Italy, he divided his time, until 1740, between the two countries. After repeated invitations, he went to England, in 1733, where he was received with great distinction, and his opera *Artaxerxes* met with the highest applause. He soon, however, returned to Dresden. He went, in 1763, to Vienna, where he composed his last opera, *Ruggiero*, and finally re- moved to Venice (1770), in which city he died, in 1783. Hasse is deservedly celebrated as the most natural, elegant and judicious composer of his time. He always regarded the voice as the chief object of attention, and, without being ignorant of harmony, he made the instrumental accompaniment as simple as possible. A pupil of Leo, Vinci, Pergolese and Porpora, he was contented with being simple and natural. His compositions are so numerous, that he himself said, there were many which he should not recognise. He set all the operas of Metastasio, ex- cept Themistocles, and most of them twice or oftener. His sacred compositions (masses, Te Deums, &c.), are still favourites at Dresden, where the greatest collection of them is to be found. His wife, Faustina Bordoni, born at Venice (1700), was one of the most celebrated and beautiful singers of the eighteenth century. She made her *début* on the stage of her native city, in her 16th year; and, wherever she was heard, she was called the *modern Siren*. Medals were struck in honour of her at Florence. The ef- fect of her musical talents was increased by her beauty. In 1726, she received an appointment of 15,000 florins at Vienna. In Dresden, where she was married to Hasse, she sang for the first time in 1731, and was ever after the faithful companion of her husband.

HASSEL, John George Henry, a distinguished German geographer and statistical writer, was born in 1770, at Wolfenbuttel, in Brunswick, and died Jan. 18, 1829, at Weimar. He was, from 1809 to 1813, director of the statistical bureau, &c., in Cas- sel, then the capital of the kingdom of Westphalia. After 1816, he lived a private life at Weimar. He wrote many works of much reputation; among others, General Geographico-Statistical Lexicon (2 vols., Weimar, 1817 and 1818); Statistical Sketch of all the European States, and the most important of the other parts of the World (3 numbers, Weimar, 1823 and 1824); Genealogico-Statistico-Historical Almanac (annually, from 1824 to 1829, Weimar)— a work which contains very extensive statistical in- formation. It will be continued by doctor Dede, who edited the number for 1830. Hassel was co- editor of the Complete Manual of the latest Geo- graphy (Weimar, 1819 to 1829), and, in connexion with W. Muller, edited the second chief division of the Encyclopædia of Ersch and Gruber, from H to O, and contributed largely to Pierer's Encyclopædia Dictionary (Altenburg, 1824 to 1828,) from A to K.

HASSELQUIST, Frederic, a Swedish naturalist, was one of the most eminent among the disciples of Linnæus. He was born in the province of Ostro- gothia, in 1722. The death of his father, who was vicar of a parish, leaving him without the means of support, he exerted his faculties, and obtained friends, by whose assistance he was supplied with the means of instruction. In 1741, he went to the university of Upsal, where his talents and industry drew the attention of Linnæus. In 1747, he pub- lished a dissertation *De Viribus Plantarum*. Soon

after, he formed the scheme of making researches, on the spot, into the natural history of Palestine; and the university having furnished him with pecuniary resources, he embarked for Smyrna in August, 1749, and arrived there about the end of November. After exploring the environs of that city, he went to Egypt, whence, in March, 1751, he took the route to Palestine, by Damietta and Jaffa. He staid some time at Jerusalem, and afterwards visited other parts of the country. Returning to Smyrna, he brought with him a most noble collection of plants, minerals, fishes, reptiles, insects, and other natural curiosities. He died there, Feb. 9, 1752. The Swedish queen, Louisa Ulrica, purchased the whole of Hasselquist's acquisitions, which were deposited in the castle of Drottningholm. Linnæus, from the papers and specimens of natural history collected by his pupil, prepared for the press the *Iter Palæstinum*, or Travels in Palestine, with Remarks on its Natural History (Stockholm, 1757, 8vo), which has been translated into English and other European languages.

HASTINGS; an ancient borough and market-town of England, on the eastern extremity of Sussex, famous for being the place near which William the Conqueror landed in England, and for the battle of Hastings, fought in the neighbourhood. It is now in great repute for sea-bathing. It is one of the Cinque Ports. Its situation is beautiful; and the environs also abound with picturesque scenery and delightful walks and rides. A walk, called the *marine parade*, has been formed on the west of the town. The public buildings are, two very ancient churches; the town hall, built in 1823, with the market-place under it; the custom-house, and two excellent free schools. The remains of an ancient castle are still to be seen. One mile west is the new town of St Leonard's, commenced in 1828, on the site where William the Conqueror landed. Population of Hastings in 1831, 10,097.

HASTINGS, Warren, was born in 1732 or 1733, at the village of Churchill, in Oxfordshire, where his father was clergyman of the parish. He was educated at Westminster school, and, in 1750, went out to Bengal as a writer in the East India company's service. After having filled some of the principal offices under the British government, and made himself acquainted with Oriental literature and public affairs, he returned to England in 1765, with a moderate fortune. In 1768, he received the appointment of second in council at Madras; and, in 1771, he was removed to Bengal, to the presidency of which he was raised the following year. In 1773, he was appointed governor-general of India. He held this situation for thirteen years, during which he had to encounter many serious difficulties, increased and strengthened the power of the company at the expense of the native princes, and, undoubtedly, was guilty of much oppression and injustice to attain this end. He raised the revenue of the company from £3,000,000 to £5,000,000 sterling. On the removal of lord North from office, in 1782, his opponents exerted themselves to displace those on whom he had conferred appointments. Upon the motion of Dundas, Hastings was recalled in 1785, and immediately loaded with accusations. The most prominent orators of the opposition, Fox, Burke, Sheridan, and others, were arrayed against him. He was accused of having governed, in the East Indies, arbitrarily and tyrannically; of having extorted immense sums of money; of having accomplished the ruin of many princes; in short, of having exercised oppression of every description. February 17, 1786, Burke laid the charges against him before the lower house, which were carried, in May 1787, into the upper; and the trial commenced February 13, 1788. The solemnity of the proceedings in a case of this nature, and the consequent slowness with which they were carried on, together with numerous interruptions, retarded the final decision. Many of the points of accusation required an accurate examination of the state of affairs in the East Indies, and witnesses had to be summoned thence to London. The speeches of the accusers often occupied several days; and, April 15, 1794, the upper house held its one hundred and twentieth session, for the purpose of coming to a final decision. The public opinion, which had in the beginning, preponderated in favour of the accusers, now declared itself unanimously for the defendant; and the return of lord Cornwallis from India was decisive in his favour. April 23, 1795, Hastings was acquitted and sentenced to pay only the costs of prosecution (£71,080 sterling), the crown itself had, besides this, incurred an expense of £100,000 sterling. The East India company indemnified him by a pension of £4000 for twenty-eight years, paid him £42,000 of the amount in advance, and made him a loan of £50,000. The salary or pension was afterwards settled on him for life. He was made a member of the privy council; but he interested himself little in public affairs; and died August 22, 1818. He published some pieces relating to India, and speeches and papers in defence of his conduct.

HASTINGS, Francis, marquis of Hastings, earl of Rawdon, &c., was the son of John, baron Rawdon and earl of Moira, of the kingdom of Ireland, and was born December 7, 1754. He was educated at Oxford; and, after a short tour on the continent, he entered the army in 1771, as an ensign in the fifteenth regiment of foot. Having obtained a lieutenancy, he embarked for America, in 1773, and was present at the battle of Bunker's hill. After having served in other engagements, he was nominated, in 1775, adjutant-general of the British army in America, with the rank of lieutenant-colonel. He next commanded a distinct corps in South Carolina, where he successfully opposed general Gates; and, at the battle of Camden, on the 16th of August, 1780, lord Rawdon commanded one wing of the army under lord Cornwallis. He subsequently defeated general Greene; but the surrender of lord Cornwallis's army put a period to his exertions. A severe and dangerous illness, however, obliged him to quit the army before the conclusion of hostilities. He embarked for England, and the vessel which carried him was captured and taken to Brest; but he was immediately released, and, returning home, was made aid-de-camp to the king, and created an English peer, by the title of baron Rawdon. He distinguished himself both in the English and Irish parliaments, particularly in the former, in the debates relative to the bill for the relief of persons imprisoned for small debts. In June, 1793, he succeeded his father as earl of Moira, and the same year he was advanced to the rank of a major-general. In the summer of 1794, he was sent, with a reinforcement of 10,000 men, to join the duke of York, opposed to the French in Holland. In 1797, an attempt was made to place him at the head of the ministry; but the scheme did not succeed. When the whigs, with whom he had acted, came into power, in 1806, he was appointed master-general of the ordnance, which post he resigned on the fall of his party. He was engaged, subsequently, in political negotiations, which proved abortive; and, in 1812, as he could not act with the administration then in power, he obtained the appointment of governor-general of British India. In 1816, he was created viscount Loudoun, earl of Rawdon, and marquis of Hastings; and

he twice received the thanks of the East India company, and of the houses of parliament, for his able services in the Indies. He returned to England in 1822, when he was succeeded by lord Amherst. In March 1824, he was nominated governor of Malta, where he resided till near the time of his death, which occurred November 28, 1825, on board his majesty's ship Revenge, in Baia bay, near Naples. The later years of the life of this nobleman were clouded by the consequences of his profuse liberality and generous hospitality, particularly to the French emigrant noblesse.

HATCHING, natural and artificial. See *Incubation*.

HATTERAS, Cape. See *Cape*.

HATTI-SHERIFF; an order which comes immediately from the grand signior, who subscribes it usually with these words:—"Let my order be executed according to its form and import." These words are usually edged with gold, or otherwise ornamented. An order given in this way is irrevocable.

HATTON, Sir Christopher, an eminent statesman and lawyer in the reign of queen Elizabeth, was entered a gentleman commoner of St Mary Hall, Oxford, but removed, without taking a degree, to the Inner Temple, not to study law, but to enlarge his knowledge of the world. He came, on one occasion, to court at a masque, when queen Elizabeth was so much struck with his graceful person and dancing, that an introduction to her favour was the immediate result. He was made one of the queen's pensioners, gentleman of the privy-chamber, captain of the guard, vice chamberlain, privy counsellor, and, in 1587, lord chancellor. His inexperience created much prejudice against him, but his sound natural capacity supplied his deficiency of information, and his decisions were seldom found defective in judgment or equity. He died in 1591.

HATZFELD, Francis Louis, prince of, was born at Vienna, 1756, and was, in 1806, governor of Berlin, when the French entered it. The French having discovered that prince Hatzfeld continued to give the Prussian government information, &c., Napoleon ordered a court-martial to try him as a spy. The wife of the prince being informed of the danger, hastened to Napoleon, and threw herself at his feet, assuring him that her husband was incapable of doing any thing that was dishonourable. Napoleon showed her the letter, which she acknowledged to be written by the prince, and fainted. When she came to herself, Napoleon told her that she had the only document against her husband in her hand, and asked her why she did not burn it. She did so, and Napoleon pardoned the prince. The Memorial of Las Cases contains the touching letter which Napoleon wrote on this occasion to the empress. Hatzfeld was afterwards employed on diplomatic missions. He was Prussian minister at the Hague and Vienna, and died, in 1827, at the latter place.

HAUBOLD, Christian Gottlieb, doctor, ordinary professor of German law at Leipsic, and one of the most celebrated jurists of the time, was born at Dresden, November 4, 1766, and died, in consequence of over exertion, March 14, 1824. He began the study of law in 1781. In 1784, he defended a thesis, *De Differentiis inter Testamentum nullum et inofficiosum*. In 1786, he delivered his first lecture on the history of Roman law. In 1788, he was made doctor of law; 1789, appointed professor extraordinary of legal antiquities; and, finally, in 1821, second ordinary professor in the university of Leipsic. Profound knowledge of classical antiquity and of the languages, prepared him for the study of the Roman law, which he pursued in all its departments, and to which he directed all the powers of his mind, although no province of jurisprudence was strange to him. He secured a permanent reputation, especially by his celebrated treatise *Institutionum Juris Rom. priv. historico-dogmaticorum denuo recognitarum Epitome*, etc. (1821); his *Lineamenta* (published from his manuscripts, after his death, by Otto, Leipsic, 1825); his *Doctrinæ Pandectarum Lineamenta cum Locis Classicis*, etc. (1820); his *Institutiones Juris Romani Literariæ* (1809); his new edition of the *Rogerius Beneventanus* (1821), and of the Legal Antiquities of Heineccius (1822); his *Manuale Basilicorum* (1819, 4to), and his Manual of Saxon Law (1820.) In his numerous dissertations, he proves himself profoundly versed in the science of jurisprudence, for which he prepared himself by his laborious researches, his iron industry, his scrupulous accuracy, and the collection, at a great sacrifice, of a valuable library. Haubold's *Opuscula Academica* was published by professor Wenck (Leipsic, 1825.) In a continual intercourse with Hugo and Savigny, and other eminent jurists of our time, he has contributed much to the improved manner of studying the science of law from its sources. As an academical instructer, his celebrity was so great, that his lecture room was hardly capable of containing the crowds of young men from every part of Germany, and even from foreign countries, who came to receive the benefit of his instruction. His library, consisting of nearly 10,000 volumes on Greek and Roman law, was purchased by the emperor Alexander for the university of Abo.

HAUGWITZ, Christian Henry Charles, count of; first minister of state and of the cabinet to the king of Prussia, born, in 1758, upon his father's estates in Silesia. After studying at Gottingen, he married, and went to Italy, where he remained several years. On his return, the Silesian estates elected him director-general of the province. Meanwhile, Leopold II., with whom he had become acquainted in Tuscany, had ascended the throne of Germany. Leopold wished to carry certain plans into execution, in conjunction with Prussia, but his propositions met with an unfavourable reception at Berlin, where Hertsberg was then at the head of affairs. The emperor attributed this ill success to the Prussian ambassador, and requested Frederic William II. to send count Haugwits to his court. The king complied with this request the more readily, as the numerous enemies of Hertsberg endeavoured to place Haugwits in the most favourable light. He pleaded his inexperience in diplomatic affairs, as an excuse for not accepting the mission; but, seeing that, if he persisted in his refusal, he should only offend two powerful princes, he finally accepted the post, but declined receiving any pay. When Hertsberg retired from public affairs, Frederic William, who reposed great confidence in Haugwits, gave him the portfolio of foreign affairs and the presidency of the cabinet. In this situation, Haugwits, in spite of much difficulty, succeeded in making Prussia the centre of all political movements. Frederic William rewarded the services of his minister with the order of the black eagle, and the grant of estates in South Prussia. When Frederic William III. ascended the throne, Haugwits retained his station. At this time, the tendency of Haugwits's policy was to bring France and Prussia into a closer connexion, which procured some important acquisitions to Prussia. But, when the French troops occupied Hanover, in 1803, this step appeared dangerous to the neutrality of northern Germany, which Prussia had sought to maintain, and the views of the king were changed. Under the pretence of sickness, Haugwits now retired to his estates. Hardenberg, who succeeded him, adopted a different

system, so that Prussia remained neutral. In 1805, Haugwitz left his retreat, to negotiate with Napoleon at Vienna, and concluded, after the battle of Austerlitz, the convention by which Hanover was ceded to Prussia, and the neutrality of northern Germany was acknowledged. Haugwitz now recovered his former favour, and received anew the portfolio of foreign affairs. But the occupation of Hanover involved Prussia with England, while, at the same time, her relations with France became more embarrassing than ever. Haugwitz went to Paris to reconcile the contending interests, but returned without accomplishing his object. He was a witness of the battle of Jena, after which he again retired to his estates in Silesia, and avoided the hostile forces by taking refuge in Vienna. In October, 1811, he was appointed curator of the university of Breslau. He died at Vienna in February, 1832.

HAUSER, CASPAR, the name of a personage whose history is enveloped in mystery, and who was assassinated by an unknown hand, at Anspach, in Bavaria, on the 17th December, 1833. On the 26th of May, 1828, a youth, apparently about sixteen or seventeen years of age, was found at one of the gates of Nuremberg; but he was unable to give any account of himself, nor could it be discovered who brought him there, whence he came, or who he was. He was 4 feet and 9 inches in height; was very pale; had a short delicate beard on his chin and upper lip; his limbs were slender; his feet bore no marks of having been confined in shoes; he scarcely knew how to use his fingers or hands; and his attempts to walk resembled the first efforts of a child. When spoken to he understood nothing that was said to him, and only replied in a few words of unintelligible gibberish; and his countenance was expressive of gross stupidity. He held in his hand a letter addressed to the captain of one of the cavalry companies of Nuremberg, dated "Bavarian Frontiers; place nameless." Its purport was that the bearer had been left with the writer, who was a poor labourer, in October, 1812, and who, not knowing his parents, had brought him up in his house, without allowing him to stir out of it. A note accompanying the letter contained these words: "His father was one of the light cavalry; send him, when he is seventeen years old, to Nuremberg, for his father was stationed there. He was born April 30, 1812. I am a poor girl, and cannot support him; his father is dead." A pen being put into his hands, he wrote in plain letters *Caspar Hauser*. He appeared to be hungry and thirsty, but manifested great aversion to eating or drinking any thing that was offered to him except bread and water.

He fell into the hands of persons who treated him kindly, and taught him the use of language; and he manifested the most amiable and grateful disposition. But he could give no account of himself, except that, as far as he could remember, he had always inhabited a small cell, continually seated on the ground, with his feet naked, and having no covering except a shirt and trowsers, and he had never seen the sky. When he awoke from sleep he was accustomed to find near him some bread and a pitcher of water; but he never saw the face of the person who brought them; and it was at Nuremberg that he first learnt there were other living creatures besides himself and the man with whom he had always been. Previous to his death, Hauser resided at Anspach, where he had a little employment in the registrar-office, and lord Stanhope had also provided for his support. Some time before his assassination, an ineffectual attempt had been made upon his life by the same assassin, as is supposed, that finally inflicted the fatal blow with a dagger.

HAUTBOY; a portable wind instrument of the reed kind, consisting of a tube gradually widening from the top towards the lower end, and furnished with keys and circular holes for modulating its sounds. The general compass of this instrument extends from the C cliff note to D in alt, but solo performers frequently carry it two or three notes higher. Its scale contains all the semitones, excepting the sharp of its lowest note. The tone of the hautboy, in skilful hands, is grateful and soothing, and particularly adapted to the expression of soft and plaintive passages.

HAUTELISSE, and BASSELISSE; French words applied to tapestry. *Hautelisse carpets* are those which are worked with a perpendicular warp, and *Basselisse carpets* with a horizontal warp. The latter are preferred in modern times, because they are easier to be made, and yet possess equal beauty. In the Netherlands, Brussels and Doornik furnish the best works of this kind; in France, the manufactory of Gobelins.

HAUY, RENE JUST, abbé, a distinguished mineralogist, the son of a poor weaver, born 1743, at St. Just, in the department of the Oise, was at first chorister, then studied theology, and, during twenty-one years, occupied the place of a professor, at first in the college of Navarra, and afterwards in that of the cardinal Le Moine. He studied botany as a recreation, but his taste for mineralogy was awakened by the lectures of Daubenton. An accident led him to the formation of his system of crystalography. As he was examining the collection of minerals belonging to M. France de Croisset, he dropped a beautiful specimen of calcareous spar crystallised in prisms, which was broken by the fall. Hauy observed, with astonishment, that the fragments had the smooth, regular form of the rhomboid crystals of Iceland spar. "I have found it all!" he exclaimed; for at this moment he conceived the fundamental idea of his new system. He took the fragments home, and discovered the geometrical law of crystallisation. He then studied geometry, and invented a method of measuring and describing the forms of crystals. He now, for the first time, ventured to communicate the grand discovery to his instructer Daubenton, who, with Laplace, could with difficulty persuade the modest Hauy to communicate his discovery to the academy, which, in 1783, received him as adjunct in the class of botany. He now devoted himself wholly to his studies; so that he remained a stranger to the revolution, with all its horrors, until, having refused to take the oath of obedience to the constitution required of the priests, he was deprived of his place, and was arrested, in the midst of his calculations, as a recusant priest. He calmly continued his studies in prison. In the mean time, one of his pupils, Geoffroi de St. Hilaire, now member of the academy, exerted himself in favour of Hauy; and the remark of a tradesman, an officer of police in the quarter where Hauy lived, that "it was better to spare a recusant priest than put to death a quiet man of letters," saved his life. Geoffroi hastened to him with an order for his release. It was very late, and Hauy, occupied only with his researches, wished to remain in prison until the next day. Hauy continued his studies, and even ventured to write in favour of Lavoisier, who was then in prison, and of Borda and Delambre, who had been removed from their places. After the death of Daubenton, the academy wished to name the modest Hauy his successor; but he recommended Dolomieu, who was imprisoned in Sicily, in violation of the laws of nations; the latter, however, having died soon after his liberation, Hauy received his place from the first consul. The convention had already appointed him keeper of the mineralogical collections of the

ole des mines, and the directory had created him rofessor in the Normal school, and secretary of the mmissioners appointed to regulate weights and mea-ures, the result of whose labours was the new decimal stem; he was also made a member of the national stitute. Bonaparte appointed him professor of miner-ogy in the museum of natural history, and afterwards rofessor in the academy of Paris. By his influence, e study of mineralogy received a new impulse; the llections were increased fourfold, and excellently ranged. He was a most obliging and instructive perintendent of this collection. In 1803, at the mmand of Napoleon, he wrote his *Traité de Phy-que*, in six months. Being directed to ask some fa-ur, he asked for a place for the husband of his niece. apoleon granted his request, besides conferring on e modest *savant* a pension of 6000 francs. The teem which the emperor had for this distinguished an was the more honourable both to him and to auy, as the latter had never stooped to flattery, and id even opposed Bonaparte's elevation to the im-rial dignity, by signing *nay*, when the question was oposed for the ratification of the nation. When e emperor, after his return from Elba, visited the useum, he said to Hauy, "I read your Physics again Elba, with the greatest interest;" he then decor-ed Hauy with the badges of the legion of honour. auy was in the habit of amusing himself by convers-g with the pupils of the Normal school, who often sited at his house, and whom he always received id entertained with kindness. He was gentle, in-ulgent, and benevolent. Nothing could ruffle his iet temper but objections to his system. Notwith-anding his feebleness, he attained the age of nearly ghty years, and died June 3, 1822. Besides his luable treatises in different periodicals, and his ticles on natural history in the *Encyclopédie Mé-odique*, his *Essai sur la Théorie, et la Structure des ristaux* (1784), his *Traité de Minéralogie* (1801, 4 ols.), his *Traité élémentaire de Physique*, which has ready been mentioned (1803, 2 vols.), his *Traité s Caractères physiques des Pierres precieuses* (1817), is *Traité de Cristallographie* (1822, 2 vols., with en-ravings), his *Traité de Minéralogie* (2 edit., 1822, 4 ols., with an atlas), are the most distinguished. he charge of editing the manuscripts which he left, -volved on his pupil Lafosse. The duke of Buck-gham bought his precious collection of minerals, for hich Hauy had refused an offer of 600,000 francs. uvier delivered a eulogy on him before the academy 1823, and Brogniart, who had been his assistant, be-me his successor, in the museum of natural history.

HAUY, VALENTIN, a younger brother of the pre-ding, born in 1746, he was the founder of the in-itution for the blind at Paris. Previous to this, he as an instructer in the art of calligraphy at Paris. hen, in 1783, the blind pianist Mlle. Paradis, of ienna, gave a concert at Paris, the manner in which e was able to read any thing, written or printed, y means of pins placed on it, and the manner in hich she had become acquainted with geography, y the aid of maps in relief, constructed by Weissen-urg, a blind man of Manheim, excited Hauy's atten-on. He took a poor blind boy, by the name of esueur, who displayed an active mind, into his house, structed him for some time, and then presented im to the philanthropic society. This society sup-lied him with the funds necessary to establish an in-itution, according to his plan, for twelve blind boys. oon after, this new institution for the blind was nited with that for the deaf and dumb, by the re-ommendation of the duke de la Rochefoucault, and moved to a building which had been a convent of e Celestines. It soon appeared, that the two kinds f unfortunates disagreed entirely, that their dislike for each other increased every day; and at length (1794) it became absolutely necessary to divide the institution. But after this separation, the establish-ment for the blind did not flourish so well as that for the deaf and dumb. Hauy himself was partly to blame for this. With an excellent heart, he was not sufficiently attentive to the proper management of the affairs of the establishment; and, instead of an-swering the design of the institution, which was to supply, as far as possible, the lost sense of the blind, he made it merely a comfortable residence for them. It was therefore abandoned, under the consular government, and the pupils were placed in the hospi-tal of the Quinze-Vingts, with which establishment they remained connected for fourteen years, until, at length, in February, 1815, Guillié, received orders to establish an institution in another place, and to orga-nise it in an improved manner. Hauy had involved him-self in many difficulties by his hasty union with an un-educated woman, and was not successful in his attempt, after the abolition of the public institution, to establish a boarding-school for the blind (the *Musée des Aveugles*). Notwithstanding the pension of 2000 francs, which he continued to receive from the government, his circumstances became more and more embarrassed; he therefore accepted an invitation to superintend, at St Petersburg, under the patronage of the empress-mother, an institution for the instruction of the blind, in which his scholar Fournier was to be his assistant. But this undertaking did not succeed, and he returned to Paris in 1806, where he lived, with his brother the mineralogist, until his death, in April, 1822. In the revolution, of which he was a warm admirer, he took no share; but, during the directorial government, he was, together with La Réveillère-Lepaux, one of the heads of the (so called) *theophilanthropists*. His *Essai sur l'Education des Aveugles* (Paris, 1786, 4to) was printed with letters in relief, so that the blind could trace the lines with their fingers, and thus feel the letters and words.

HAUYNE; a mineral so named by Brunn Neergaard, in honour of the celebrated abbé Hauy. It was first discovered by the abbé Gismondi, who named it *latialite*, from Latium, the ancient name of the country where it occurs. Nose, who observed it in the trap-rocks of Andernach, considered it as allied to sapphire, and described under the name of *saphirin*; but more recent examinations of its properties prove it to be identical with the species called *lazulite* by Hauy.

HAVANA, or HAVANNAH (Spanish, *La Habana*, that is, *the harbour*); "the ever faithful city of St Christopher of the Havana," capital of the island of Cuba, and of the province and government of the same name; situated on the northern coast of the island, at the mouth of the river Lagisa, with the sea in its front. Lat. N. 23° 9′ 24″; lon. W. 82° 23′. Population, exclusive of the garrison and strangers, is 94,023—46,621 whites, 9225 mulattoes (of whom 1010 are slaves,) and 38,177 negroes (of whom 22,830 are slaves.) The total population is calculated at 112,023. The Havannah is the residence of a captain-general, and the see of a bishop. It is the most important commercial port in Spanish America, and is considered as the key of the West Indies. The harbour is not only the best in the island, but is esteemed by many as the best in the world, on account of its strength, and because it is capable of containing commodiously 1000 ships, without either cable or anchor, there being generally six fathoms of water in the bay. The entrance into the harbour is by a narrow channel, about a thousand feet wide at its entrance, so difficult of access that only one vessel can enter at a time. It is strongly fortified with platforms, works, and artillery, for half a mile, which is the length of the passage; and the mouth

of this channel is secured by two strong castles, one on each side. The place is also protected by other strong fortifications. The city stands on a plain on the west side of the harbour. The streets are in general narrow, crooked, unpaved, and dirty. The want of common sewers, and of cleanliness, and the vicinity of marshes, contribute to the insalubrity of the Havannah, which is much exposed to the ravages of the yellow fever, particularly in the months of August and September. The city contains eleven churches, which are magnificently ornamented, especially the cathedral, with gold and silver lamps, images, &c.; two hospitals, a lazaretto, seven monasteries and four nunneries, a university, colleges, botanical garden, nautical school, and seventy-eight schools for both sexes; a dock-yard, and many other public buildings; a theatre, a place for bull-fights, and two agreeable promenades; also a lunatic asylum, and a large charity school. An aqueduct supplies the shipping with water, and turns the sawmills in the dock-yard. The houses are almost all of only one story, and of a Gothic structure. The principal ones are built of stone, and covered with terraces, having large apartments, yet little ornamented. The great square is one of the chief ornaments of the city. The population of Havannah was much increased by Napoleon's invasion of Spain, and by the revolutions in Spanish America. The morals of the place are loose. Gaming, cock-fighting, &c., are carried on to a great extent. The customs are Spanish; foreigners who go there intermarry very little with the natives, as they seldom intend to make Havannah their permanent residence. The lower clergy are ignorant, and the ceremonies of religion are surrounded with a puerile show, which intelligent Catholics do not acknowledge as a constituent part of their religion. Manufactures are still in their infancy; some coarse cloths only are made. The commerce is very extensive. It has rapidly increased of late, and the rich productions of the island, as well as the favourable situation and excellent harbour of the city, have made Havannah one of the most important commercial places in the world. For a particular account of its commerce, see the article *Cuba*.

The city was founded in 1511, by Diego Velasques. It was taken in 1536, by a French pirate; afterwards by the English, French, and buccaneers; it was again taken by the English in 1762, but was restored to Spain at the peace of 1763. The Havannah has the honour of containing the bones of Columbus, the illustrious discoverer of America. In consequence of an order contained in the will of Columbus, his body was removed from the Carthusian convent of Seville, and deposited, along with the chains with which he had been loaded at Cuba, on the right of the high altar of the cathedral of St Domingo. When that island was ceded to the French, his descendants directed that the brass coffin, in which the whole was contained, should be removed to this city, which was done on the 19th of January, 1796. His bones are now preserved in a silver urn on the left of the altar of the cathedral. The department of Havannah contains the city and forty-two places, with a population of 247,828, of whom 109,535 are slaves. See the official work *Cuadro Estadistico de la Siempre Fiel Isla de Cuba, correspondiente al Ano de* 1827 (Havana, 1829); also Abbot's Letters on Cuba, (Boston, 1829), and Alexander von Humboldt's *Essai politique sur le Royaume de la Nouvelle Espagne*, Paris, 1808—1809, 4to.

HAVERCAMP, one of the most celebrated philologists of the 18th century, was born at Utrecht in 1683, and made such rapid advances in his studies, that he was numbered among the learned at the time of his leaving school. Not long afterwards, he was invited to accept the professorship of the Greek language at Leyden, to which was also annexed the professorship of history and eloquence. He published a number of valuable treatises, and died in 1742. From travelling in Italy, he derived a taste for the study of medals and coins, the fruits of which he exhibited in the *Thesaurus Morellianus*, in the treatise on the coins of Alexander the Great, in his universal history according to coins, and in several catalogues of collections of coins. We pass over some other writings of his, to mention his editions of the *Apologeticus* of Tertullian (1718), of Lucretius (1725, 2 vols., 4to), of the history of Josephus (1726, 2 vols., fol.), of Eutropius (1729), of Orosius (1738, 4to), of Sallust (1742, 2 vols. 4to), and of Censorinus (1743 or 1767), which are still highly esteemed for the correctness of their text and the treatises connected with them. No less esteemed is his *Sylloge Scriptorum, qui de Linguæ Græcæ vera et recta Pronunciatione Commentaria reliquerunt* (Leyden, 1736—40, 2 vols.)

HAVRE DE GRACE, LE, or LE HAVRE; an important seaport of France, in the department of the Lower-Seine; forty-five miles west of Rouen, 112 north-west of Paris; lon. 0° 16′ 46″ E.; lat. 49° 29′ 14″ N.; population 21,049. It is situated in a flat, marshy soil, intersected with creeks and ditches, on the British channel, at the mouth of the Seine. It is strongly fortified, being surrounded by lofty walls and ditches, and defended by a citadel. It is the only eligible harbour along the whole coast from Cherbourg, and is capable of containing 600 or 700 vessels, and has a long pier, and sufficient depth of water to float ships of war of sixty guns. The town has peculiar advantages from its situation at the mouth of the Seine, and its being the seaport of Paris, and is one of the most important mercantile ports of France. Steamboats start regularly for Paris, Honfleur, Rouen, and England, and regular lines of packets run between this port and Cadiz, Hamburg, Portugal, Mexico, Brasil, and the United States. It consists of long and narrow streets; the fronts of the houses are lofty, but have a heavy and mean appearance, being sometimes of stone, but oftener of wood. It contains two churches, three convents, an hospital, town-house, an arsenal, magazines, and storehouses necessary for the construction and arming of ships. Louis XII. laid here the foundation of a town in 1509, where only a few fishing huts had previously existed. Francis I. erected some fortifications, and it was some time called *Francocopolis*; but a chapel, dedicated to Our Lady of Grace, gave it the name of *Le Havre de Grace*; it is now only called *Le Havre*. It has always been largely engaged in the Newfoundland fishery. Havre and Liverpool are the principal points of communication between the old world and the new. Several packets run monthly from New York to Havre, which, with the packets from the same place to Liverpool, are the finest in the world.

HAWAII. See *Owhyhee*.

HAWICK, a manufacturing town in the south of Scotland, situated in Roxburghshire, at the confluence of the river Slitridge with the Teviot, forty-nine miles S.S.E. from Edinburgh. It is a well-built, thriving town, and can boast of considerable antiquity. It often suffered severely from the incursions of the English during the border wars. The manufacture of stockings, blankets, and gloves, the tanning of leather, and dressing of sheep-skins, form the chief trade of the place. Population of town and parish in 1831, 4970.

HAWK (*falco*). In the article *Eagle*, part of this numerous and perplexing genus has already been spoken of. It now remains to speak of such of the remainder as are known under the common name of

hawk, or *falcon*. These birds derive additional interest from the great use made of them in the amusement of hawking, which seems to have been almost universal, at certain stages in the progress of nations. Nothing is more arbitrary, or involved in greater uncertainty, than the classification of hawks. A man's life seems scarcely sufficient to acquire a perfect knowledge of all the species and endless varieties which some naturalists have given of this bird. This is owing to the change in the colour of their plumage during the first three years of their life. We shall, therefore, give a list of all our native species, derived from Lucien Bonaparte's Synopsis, also including the arrangement of such of the falcon tribe as have been noticed under *Eagle* :—

Genus FALCO is subdivided into the following subgenera :— *Aquila, Haliaetus, Pandion, Falco, Astur, Ictinia, Elanus, Buteo, Circus.*

I. *Bill elongated, straight at base.*

AQUILA. *F. fulvus, L.* Ring-tailed eagle. Common to both continents.

HALIAETUS. *F. leucocephalus, L.* Bald eagle. Common to both continents.

PANDION. *F. haliaetus, L.* Fish-hawk. Inhabits almost every part of the globe.

II. *Bill curved from the base.*

1. *Bill with a sharp tooth each side.*

(a) *Wings reaching to the tip of the tail, tarsi reticulated.*

FALCO. *F. peregrinus, Gm.* Great-footed hawk. Both continents.

(b) *Wings not reaching to tip of the tail, tarsi scutellated.*

F. Sparverius, L. American sparrow-hawk. Peculiar to North America.

F. columbarius, L. Pigeon-hawk.

2. *Bill with an obtuse lobe each side.*

(a) *Tarsi rather short and robust.*

ASTUR. *F. palumbarius, L.* Ash-coloured hawk. Common to both continents.

F. Pennsylvanicus, Wils. Broad-winged hawk. Peculiar to North America; very rare.

(b) *Tarsi long, slender, smooth.*

F. velox, Wils. Slate-coloured hawk. Sharp-shinned H. Peculiar to North America.

F. Cooperii, Bon. Cooper's hawk. Peculiar to North America.

ICTINIA. *F. plumbeus, Gm.* Mississippi kite. Peculiar to North and South America.

ELANUS. *F. dispar., Temm.* White-tailed hawk. North and South America.

F. furcatus L. Swallow-tailed hawk. North and South America.

(*a*) *Tarsi feathered to the toes.*

BUTEO. *F. lagopus.* Rough-legged falcon. Common to both continents.

F. Sancti-Johannis, Gm. Black hawk. Peculiar to North America.

(β) *Tarsi partly feathered.*

F. borealis, Gm. Red-tailed hawk, and American buzzard. Peculiar to North America.

CIRCUS. *F. hyemalis, Gm.* Winter falcon. Red-shouldered hawk. Peculiar to North America.

F. cyaneus, L. Marsh-hawk. Inhabits both continents.

HAWKE, EDWARD, LORD; a celebrated naval commander of the last century. His father, a member of the English bar, in compliance with the strong predilection which his son evinced, at an early age, for a sea-faring life, procured him a midshipman's birth aboard a king's ship. After going through the usual gradations, he was appointed, in 1734, to the command of the Wolf, and served with great credit. Being promoted to the command of a squadron, in 1747, he fell in with the French fleet, which he totally defeated, taking six large ships of the line. For this service, he was presented with the vacant red riband, and promoted to be vice-admiral of the blue. In 1759, being then vice-admiral of the white, he was sent in pursuit of the Brest fleet, which he came up with off Belleisle, and gave the enemy a second defeat, not inferior to the first. These successes were rewarded with a pension of £2000, voted him by parliament; and, in 1765, he reached at length the head of his profession, being appointed vice-admiral of Great Britain, and first lord of the admiralty. In 1776, he was advanced to a seat in the house of lords, but survived this accession of dignity little more than four years, dying at Shepperton, in the county of Middlesex, in the autumn of 1781.

HAWKESWORTH, JOHN, LL.D.; the son of a watchmaker, of Bromley, in Kent, where he was born in 1715. His father apprenticed him, at an early age, to his own trade. His dislike to the business, however, soon proved insuperable, and he became clerk to a writing stationer. Some essays in the Gentleman's Magasine introduced him to the acquaintance of Cave, the proprietor of that work, who, on the secession of Johnson, placed him in his situation, as compiler of the debates in both houses of parliament. In 1752, there appeared, from his pen, the first of a series of essays, which he continued through that and the two following years, with the assistance of his friend Joseph Warton, and other occasional contributors. These were collected and published (in 4 vols. 12mo), under the title of the Adventurer. He then undertook a commission from government to arrange and digest the discovery voyages of Byron, Wallis, Carteret, and Cook, in the Pacific. This task he completed, not altogether to the satisfaction of the public, in 1773, when the work appeared in three volumes, 4to. He died at Bromley, November 16, 1773.

HAWKINS, SIR JOHN; a renowned English sea commander of the sixteenth century. He was a native of Plymouth, and was the son of Captain Wm. Hawkins, a naval officer. He made several voyages in his youth, and thus acquired much maritime experience. In 1562, he projected an expedition, the object of which was to procure Negroes on the coast of Africa, and convey them for sale to the West Indies. In this plan he was successful; and he is branded on the page of history, as the first Englishman, after the discovery of America, who made a merchandise of the human species. He made two subsequent voyages for the purpose, one of which proved very profitable; and he was rewarded for the supposed benefit conferred on his country, by the addition of a crest to his coat of arms, consisting of "a demi-Moor, proper, bound with a cord." The third expedition was unfortunate; for, having endeavoured to carry on a contraband trade with the Spaniards, his small fleet was attacked by an overpowering force, and only one of his ships and a bark escaped being taken or destroyed; and after undergoing great hardships, he reached home in January, 1568. He afterwards filled the office of treasurer of the navy; and he appears to have been much consulted on maritime affairs. In 1588, he was appointed

vice-admiral of the squadron sent out against the Spanish armada, and he received the honour of knighthood for his conduct on that occasion. His last service was in 1595, when he was sent, with Sir Francis Drake, against the West Indian settlements of the Spaniards. The two commanders differed in opinion; and their consequent want of success occasioned so much chagrin to Sir John Hawkins, that it is supposed to have hastened his death, which took place at sea, November 21, 1595, in his seventy-fifth year.

HAWKINS, Sir John; a lawyer and miscellaneous writer of the last century. He was born in London, in 1719. He practised as a solicitor, with reputation, for some years, writing also for the periodical press. In 1749, he was chosen a member of a club established by doctor Johnson, with whom he formed an acquaintance which lasted during their joint lives. He contributed some notes for Johnson and Steevens' edition of Shakspeare, and for some years he was engaged in preparing for the press a General History of the Science and Practice of Music, which he published in 1776 (in 5 vols. 4to). Sir John Hawkins, having accepted the office of executor to doctor Johnson, was employed by the booksellers to draw up a memoir of that celebrated writer, to accompany a posthumous edition of his works. Neither as editor or biographer does he appear to advantage. Some pieces, not written by Johnson, are printed among his works; and the Life, which forms a bulky octavo, seems to have served the writer as a receptacle for the contents of his common-place book. His death took place May 21, 1789.

HAWKWOOD, Sir John; a military adventurer of the fourteenth century, who, by his valour and conduct as a commander, raised himself from an humble origin to rank and reputation. Having entered, in the capacity of a private soldier, the English army, then preparing for the invasion of France, with Edward III. and the Black Prince at its head, his courage and military abilities soon procured him the honour of knighthood. In 1360, on the conclusion of the peace of Bretigny, Sir John joined himself with some other soldiers of fortune, whose revenues were unequal to the support of their rank in times of tranquillity. These associates, under the name of *Les tard Venus*, continued, notwithstanding the cessation of national hostilities, to harass and plunder their old enemies, the French, and even extended their depredations to Italy. After leading a marauding life of this description for nearly four years, he once more took regular military service, under the republic of Pisa, and displayed his accustomed bravery. Having carried arms under this banner for three-and-twenty years, he in 1387, exchanged the Pisan service for that of the Florentines. He died at Florence, March 6, 1393, at a great age, and was honoured with a public funeral in the church of Santa Reparata.

HAWLEY, Joseph, a distinguished American patriot, was born, in 1724, at Northampton, Massachusetts, where he became a lawyer, after graduating at Yale college, in 1742. He soon acquired great eminence in his profession, and an extensive practice. He was distinguished for his knowledge of political history and the principles of free government—a circumstance that rendered him one of the ablest advocates of American liberty, in the defence of which he took an early and strenuous part. His influence in the quarter of the country in which he lived became very great, and was owing as much to his high-minded, inflexible integrity, as to his talents. The sentiments of enmity and dread which the friends of the British administration entertained, in consequence, towards him, caused them to seek every method of injuring him; and, by their exertions, at length excluded from the bar; but he was soon restored. The unjust cast upon his conduct irritated him that he pledged himself never to accept tion, office, or emolument, under any pledge which he amply redeemed. times chosen a counsellor, but refused office, preferring a seat in the he was first elected in 1764. In tinued to exert himself, with the g effect, against the arbitrary measures ment, and was one of the first to that they should be resisted by arms approached, some persons repr of entering into a contest appare His answer was, "We must put to will bring us into port." Although retired from the legislature in 177 his efforts to advance his country's powerful addresses, contributed to of his fellow citizens during the t difficulties and gloom. He died aged sixty-four years, having been during the latter portion of his life, driacal disorders.

HAWTHORN, or WHITE THO *oxyacantha)*; a small, spiny Eur sometimes to the height of twen feet, much admired for the beauty forming excellent hedges. The lea shining, more or less deeply lobed beautiful green colour; the flowers times with a reddish tinge, disposed possess an agreeable perfume; the mature, is of a bright red colour. *crataegus* are about thirty in number small trees, spiny, with alternate leaves, and bearing fruit resembling that of the apple, to which plant allied, being distinguished chiefly by seeds, and are arranged with it under ral family *rosaceæ*.

HAYDN, Joseph; born 1732, in Rohrau, on the borders of Hungary His father, a poor wheelwright, played on Sundays, his mother accompanying When the boy was five years old, he his parents' performance, to make board and a stick, as if he was play A schoolmaster, whom accident led to observed that Joseph kept good time, sion to take him to his school. Here he read and write, and received instruction and in playing on the violin, and other After he had been here two years, he he age of eight years, a chorister in St the age of ten years, he composed eight voices. "I then thought," he remarked, laughingly, "that the blacker the finer the music." With his fine lost his place, in his sixteenth year. was now very discouraging, and he of the difficulties which await an artist or patrons. He gave instructions in in the orchestra, and occupied himself ing. "With my worm-eaten harpsichord," "I did not envy the lot of kings." the six first sonatas of Emanuel Bach hands. "I did not leave the harpsichord until they were played through, from end; and any one who knows me, that I owe much to Emanuel Bach; that fully studied his style; and he hims me a compliment about it." The you

good fortune to become acquainted with a Martines, the friend of Metastasio. He l her in singing and playing on the harpsi- r which he received his board and lodging. opera poet of the age, and the best com- symphonies thus lived in the same house, n very different circumstances. The poet, l with the favour of the court, lived in the pleasures, while the poor musician was to pass the days in bed, for want of fuel. lle. de Martines left Vienna, Haydn was anged in the greatest distress. He retired suburb of Leopoldstadt, where a hair-dresser into his house. This residence had a fatal over the rest of his life. He married the r of his host, who poisoned his happiest days. vas eighteen years old when he composed his rtetto, which met with general success, and ged him to new efforts. At the age of nine- composed the Devil on Two Sticks, an hich was forbidden, on account of its satirical r, after its third representation. Haydn came so celebrated, that prince Esterhasy him at the head of his private chapel. For nce he composed some beautiful symphonies, artment in which he excelled all other compo- nd the greatest part of his fine quartetts. e also composed the symphony known by the f *Haydn's Departure*, in which one instru- ops after another, and each musician, as soon has finished, puts out his light, rolls up his ok, and retires. When, after a period of wenty years, the prince Esterhasy reduced rt, and Haydn received his discharge, he went lon, to which he had often been invited. In e made a second journey thither. He found splendid reception, and the university of conferred upon him the degree of doctor of

In England, Haydn first became generally ; he had not enjoyed an extensive reputation ative country. On his return from England, hased a small house and garden in one of the s of Vienna. Here he composed the Creation e Seasons. The former work, which is full of of youth, was finished in his sixty-fifth year. asons, his last work, was completed in eleven . Among his numerous works are also a m, a *Stabat*, many concerts, marches, masses, Haydn made a new epoch in instrumental

Inexhaustible in invention and execution, new and original, always surprising and ing the hearer, he ruled the taste of the age. mphonies have all these characteristics. From e quartetts first obtained a spirit and an artful tion, which enraptured connoisseurs. Some before his death, which happened May 31, the Dilettanti society in Vienna concluded winter concerts with a splendid performance of reation, to which Haydn was invited. His tion made a great impression on him, weak- as he was by age, but his own work affected till more deeply; and, at the passage "It was " overpowered him by the harmony which he himself created, the tears ran down his cheeks, with upraised arms, he cried, "Not from me, but e does all this come!" He sunk under the weight feelings, and was obliged to be carried out.

AYLEY, WILLIAM, an English poet of the last ry, was born at Chichester, in 1745, and studied inity college, Cambridge. After quitting the uni- ty, he settled at Eartham, in Sussex, where he ased landed property, devoting his time princi- to literature. His Poetical Epistle to an eminent ter (G. Romney), 1778, was followed by two other l poems. In 1780 appeared his Essay on History, in Three (poetical) Epistles to Edward Gibbon (4to), and, in 1781, his Triumphs of Temper. He next published an Essay on Epic Poetry (1782,) Essay on Painting, Triumphs of Music, and Essay on Sculpture. The most popular work which Hayley produced, next to the Triumphs of Temper, was a prose Essay on Old Maids (3 vols., 12mo), illustrated by a series of fictitious narratives, chiefly satirical. In 1803, he published the life and correspondence of the poet Cowper (2 vols., 4to), to which he added a supplement in 1806. He died November 12, 1820.

HAYMARKET THEATRE; one of the principal theatres of London, so called from the Haymarket, where it is situated. It was opened in 1821, almost on the site of the original building, which was erected in 1702. The theatre is licensed to exhibit regular dramas during summer.

HAYNE, ISAAC, an American patriot of the revolution, was descended from a highly respectable family in South Carolina; and when the struggle between the colonies and the mother country commenced, he was living on his plantation, in the enjoyment of an independent fortune. In 1780, he held the rank of captain in a corps of militia artillery, at the same time that he was serving as a senator in the state legislature. Having been disgusted by the promotion of a junior officer over his head, he resigned his commission, and returned to the ranks of the company which he had commanded, as a private, in which capacity he served during the siege of Charleston by the royal troops. After the capitulation of that city by which the persons and property of the Americans were guaranteed, though it precluded them from again bearing arms, Mr Hayne returned to his farm. Here, in the beginning of 1781, when his wife and several of his children were dangerously sick of the small-pox, he was required, by the commander of the British forces in his neighbourhood, to take up arms as a British subject, or repair to Charleston as a prisoner. He refused to do either, protesting his inviolability under the capitulation of Charleston. At length, however, he was induced to go to Charleston by the assurance that he would be permitted to return to his family on engaging to "demean himself as a British subject, so long as that country should be covered by a British army." He obtained a written agreement to that effect, and, after repairing to Charleston, showed it to brigadier-general Patterson, and solicited permission to return home. This was refused, and he was told that he must either swear allegiance to the British government, or be subjected to close confinement. Thus deceived, he at length consented to subscribe a declaration of his allegiance to the king of Great Britain; but he expresly objected to the clause which required him "with his arms to support the royal government," affirming that he never would bear arms against his country. He was assured that this would not be required, and then hastened back to his family only in time to hear the expiring sigh of his wife, and to behold the corpse of one of his children. Although he might have considered himself justified in not complying with his promises to the British government, in consequence of the artifice by which he had been inveigled into the garrison of Charleston, and the compulsion by which he had been forced to *take protection*, in the language of the day, yet such was his scrupulous sense of honour, that he determined to observe them with fidelity. He continued, therefore, to reside privately upon his estate, until he was summoned, after the successes of Greene had changed the face of affairs, to repair immediately to the British standard. This was a violation of the agreement, in which it was stipulated that he should not be called upon to bear arms against his country; and finding himself

consequently released from all obligation of observing it on his part, he hastened to the American camp. After serving some time, however, he was made a prisoner, and brought to Charleston, where he remained in confinement until lord Rawdon, the commander of the royal forces in South Carolina, came to the town. He was then taken before a court of inquiry, and condemned to be hanged, "for having been found under arms, and employed in raising a regiment to oppose the British government, though he had became a subject and accepted the protection of that government." This unjust and merciless sentence was accordingly put into execution on the fourth of August, 1781. Colonel Hayne met his fate with the greatest fortitude and composure. This act has since been the subject of a controversy, in which lord Rawdon, then earl of Moira, and since marquis of Hastings (see *Hastings*), endeavoured to justify his conduct.

HAYSTACK MOUNTAIN, Great, or LAFAYETTE MOUNTAIN, is one of the highest mountains in New Hampshire, situated in the north-east part of the township of Franconia, nearly equidistant from mount Washington in the north-east, and Moosehillock in the south-west. It has generally been known by the name of the *Great Haystack mountain;* but, in 1824, an attempt was made to change its name to that of *Lafayette mountain*. The Franconia notch is a deep ravine in the mountains, through which the road from Franconia to Plymouth passes. About the year 1825, a foot path was cleared out from this road to the top of the mountain. The point where the path commences in the notch, is six miles from the Franconia iron works, and the length of it, from the road to the summit, is three miles; and throughout this distance it is almost uniformly steep. The ascent is more difficult and fatiguing than that of mount Washington, on account of the greater and more uniform steepness, and the more rugged state of the path. A person, while descending, is more strongly impressed with the almost unvaried steepness, than while ascending. The ascent, for the distance of about two miles, is through a thick forest of hemlock, hackmetack, spruce, and other evergreen trees. Higher up, the mountain is encompassed with a zone, about half a mile in width, covered with small stunted trees, chiefly hemlock and spruce. Above the upper edge of this zone, which is about half a mile from the top, trees and shrubs disappear. The summit is composed chiefly of bare rocks, partly in large masses, and partly broken into small pieces; and it has less grass and other kinds of vegetation upon it than are found on the higher part of mount Washington. About three quarters of a mile from the top, there is a small pond of cold water. The view from the summit is exceedingly picturesque and magnificent. Although it is not so extensive as that from the top of mount Washington, yet, owing to the situation of the Great Haystack, nearer the centre of this mountainous region, it is not inferior to it, either in beauty or grandeur. The view to the north-east, east, south and south-east, is one grand panorama of mountain scenery, presenting more than fifty summits, which, when viewed from this elevation, do not appear to differ greatly in height. Some of these mountains are covered with verdure to the top, while the summits of others are composed of naked rocks; and down the sides of many of them may be seen *slides* or *avalanches*, of earth, rocks, and trees, more or less extensive, which serve to diversify the scene. At the place in the road through the notch where the path up the mountain commences, is exhibited to the view of the traveller, on the summit of the mountain opposite to the Great Haystack, a remarkable curiosity, called the *profile*, or *old man of the mountain*, which is a singular *lusus naturæ*. It is situated on the brow of the peak, which rises almost perpendicularly from the surface of a small lake, directly in front, to the height of about 800 feet. The front of this precipice is formed of solid rock; but as viewed from the point where the profile is seen, the whole of it appears to be covered with trees and vegetation, except about space enough for a side view of the old man's head. All the principal features of the human face, as seen in a profile, are exhibited with surprising exactness. The little lake at the bottom of the precipice, is one of the sources of the Pemigewasset river; and about half a mile to the north of this, there is another somewhat larger lake, which is about a mile in length, and surrounded by picturesque scenery. These lakes are both situated in Franconia notch, and very near the road. The northern one is 900 feet above the site of the iron works in Franconia, and the highest point of the road is 1029 feet above the same level.

HAYTI, or HAITI (*the mountainous*); the Indian name of one of the Antilles, to which Columbus gave the name of *Espanola* (Hispaniola, Little Spain), but which was commonly called *St Domingo* by the French and English, from its capital. It lies south-east of Cuba, (from which it is separated by the Windward passage, eighteen leagues in width), and east of Jamaica, and between latitude 17° 6′ and 19° 58′ N., and longitude 68° 25′ and 74° 35′ W. Its greatest length, from east to west, is about 390 miles, its breadth from 60 to 150 miles, its superficial area 30,000 square miles. On the west it forms two remarkable promontories, between which is the gulf of Gonaives. The northern point is cape Isabella, the eastern, cape Engagno. Old cape François forms the north-east extremity of the island. On the northern coast lies the island of Tortuga, separated from the main land by the narrow channel of the same name. The face of the country is, in general, mountainous, and intersected with deep valleys. The Cibao mountains run across the island from east to west. The highest summits are about 6000 feet above the level of the sea. Monte-Christi in the north-east, is the other principal chain. In the south-east part, particularly, there are extensive plains or savannas, occupied by large herds of swine, horses, and horned cattle. That of Los Llanos, which lies east of the city of St Domingo, is eighty miles long, by twenty-five to thirty broad. The Vega Reale is of nearly the same extent, and more fertile. Hayti is well watered by numerous rivers; the soil is fertile, producing every variety of vegetable for beauty and use. The climate, on account of the inequalities of the surface, and diversity of situation, is various. In the plains, the great heat, joined to the natural humidity, is often fatal to Europeans, but produces a rich vegetation. On the coasts, the regular sea and land breeses are refreshing. On the mountains, the cold is often uncomfortable. As in all tropical climates, the year is divided into the dry and the rainy seasons. In May and June, the rain falls in torrents, but hurricanes are less frequent than in the other Antilles. Sugar-cane, coffee, cotton, cocoa, are produced in great abundance. Indigo was formerly much cultivated, but is now little attended to. The plantain, vanilla, potatoe, manioc, &c., are spontaneous productions of this rich soil. The mountains are covered with valuable timber, oak, mahogany, satinwood, ironwood, &c. Before the arrival of the Europeans, there were but four species of quadrupeds in the island. Of these the agouti only survives. The principal towns are Cape Haytien (q. v.) the capital, the Mole, Port-Republicain (Port-au-Prince) and St Domingo. The island is divided into five departments, which are subdivided

into thirty-three *arrondissements*. The population, in 1824, was 953,335, almost all blacks and mulattoes, the greater part of which is in the French division of the island. In 1789, the population was 665,000. The regular troops, in 1824, were 40,000; the militia, 113,000. The language of the government, and of the greatest part of the population, is French. The Spanish is also spoken in the eastern portion of the island. Much has been done for public instruction. There is hardly a considerable village without a school, and a college has been established at Cape Haytien, where a liberal course of instruction is pursued. The manners of the lower classes are much improved since they have gained their freedom, and they have an air of comfort, wealth, and happiness. The Catholic is the religion of the state, but all sects are tolerated. The commerce of Hayti has been affected, of course, by the vicissitudes of its government. In 1789, the island was in a most flourishing condition, but its commerce and industry were interrupted by the bloody wars and revolutions which succeeded, and have only of late begun to revive. The exports were, in

	1791,	1804,
Coffee,	68,151,180 lbs.	31,000,000 lbs.
Sugar,	163,405,220	47,600,000
	1822,	1824,
Coffee,	35,117,834 lbs.	37,700,000 lbs.
Sugar,	652,541	725,000

Estimated value, in 1822, 9,030,397, dollars; in 1825, about 8,000,000. The revenue, in 1825, was about 4,000,000 dollars, which fell short of the expenditures. The government of Hayti is republican. The chief magistrate is the president, who is elected for life by the senate. He exercises the executive power, commands the forces of the republic, and nominates all officers. The legislative power is vested in a senate and house of representatives. The latter are chosen for five years, and consist of one representative from each commune and two from each capital city. The senate is composed of twenty-four members, chosen for nine years by the representatives, from a list presented by the president. A code, based on the French, has been adopted, and trial by jury introduced. See *Present State of Hayti, by J. Franklin*, 1828; *Notes on Hayti, by Charles Mackenzie, late English Consul-General to that Island*, London, 1830.

The island of Hispaniola is memorable for having been the seat of the first European settlement in America, and the scene of the first independent empire founded by African slaves. It was discovered by Columbus, on the 6th of December, 1492, on his return from Cuba. It had borne the name of *Hayti* among the natives. Columbus called it *Espanola*, or *Little Spain*, and it has since acquired the name of *St Domingo*, from the chief town. The impression made on Columbus, by the beauty of the country, determined him to form a settlement here; and he accordingly left thirty-eight Spaniards at the bay of St Nicholas. These were the first colonists of America. On his return, in November, 1493, he founded a second town on the northern coast, which he called *Isabella*, the first settlement having been nearly destroyed by the natives. The licentiousness and avarice of the new settlers again provoked the Indians to attempt revenge; but these miserable beings were overpowered by European skill, and great numbers perished by famine and the sword. In 1496, Columbus returned to Spain, leaving his brother Bartholomew lieutenant-governor, who soon afterwards removed the colony to the south side of the island, where he founded the city of St Domingo. The colonists were distributed in different districts, and a certain number of natives were appointed to cultivate each allotment. This unhappy race dwindled away fast, under disease and a species of labour to which they were unaccustomed. See Irving's *Columbus*. Their numbers were so much reduced about the year 1513, that Ovando, to supply labourers, decoyed 40,000 of the inhabitants of the Bahamas into St Domingo; and, notwithstanding this accession, it is said, that towards the middle of that century, scarcely 150 Indians remained alive. The colonists, in the mean time, degenerated from the spirit and enterprise of their ancestors. Their mines were deserted, and their agriculture neglected; and, although Ovando had introduced the sugar-cane from the Canary islands, yet, such was the indolence of the inhabitants, that they could not be persuaded to cultivate it. In this state of things, the island remained for upwards of a century. About the middle of the seventeenth century, the French and English buccaneers (q. v.) began to attract notice. The French obtained a footing on the west end of the island about the same time that the English got possession of Jamaica. The former applied themselves to agriculture, and, in a few years, attracted the attention of the French government. Several slaves having been taken from the English, in the war of 1688, the inhabitants renewed the culture of the sugar-cane. From the year 1722, when the French colony was freed from the yoke of exclusive trading companies, it rapidly rose in prosperity, while the Spanish settlements had declined in population. It was not until 1675, when Charles II. opened a free trade to all the Windward islands, that Hispaniola began to exhibit symptoms of prosperity. In 1691, Spain had ceded to France, by the treaty of Ryswick, the western half of the island. In 1776, a new line of demarcation was drawn, and a liberal commerce was opened between the two sections. From 1776, to 1789, the French colony was at the height of its prosperity. Its productions were immense and valuable, and its commerce in the most flourishing state. In 1791, an insurrection of the negroes broke out in the French colony. In two months, upwards of 2000 whites perished, and large districts of fertile plantations were devastated. In 1792, the national assembly proclaimed the political equality of the free negroes and the whites, and, in the succeeding year, appointed three commissioners, who, on their arrival, proclaimed the emancipation of the slaves. June 21, 1793, Macaya, a negro chief, entered Cape François, at the head of 3000 slaves, and began an indiscriminate slaughter. The British government, hoping to take advantage of the confusion, sent a body of troops from Jamaica, who captured Leogane and Port-au-prince. The yellow fever, however, breaking out, reduced their numbers rapidly; and the blacks, headed by Rigaud, a mulatto, and the celebrated Toussaint Louverture, who had been appointed, by the French government, commander-in-chief, retook the principal places. The British, after an enormous loss of men, finally evacuated the island, in 1798. Previously to this, Spain had ceded to France the eastern part of the island. July 1, 1801, the independence of Hayti was proclaimed. Under the administration of Bonaparte, then first consul, a force of 20,000 men, under general Le Clerc, was despatched in December, 1807. During a truce, Toussaint was surprised and carried to France, and there died in April, 1801. Hostilities were now resumed with greater animosity on each side. The command of the black troops devolved upon Dessalines, one of the chiefs, who prosecuted the war with vigour and success. The yellow fever aided the cause of the negroes, and swept off great numbers of the French. General Le Clerc died shortly afterwards. Under his successor, Rochambeau, the French, now reduced

to a handful, were driven into the Cape, where, November 30, 1803, they were forced to capitulate to a British squadron; and thus the greater part of the island was abandoned, and opposition ceased to the independence of the negroes. January 1, 1804, the general and chiefs of the army entered into a solemn compact, in the name of the people of Hayti, renouncing all dependence on France. At the same time, they appointed Dessalines governor for life, with very extensive powers. On his return, in September, from an unsuccessful expedition against the city of St Domingo, which was still occupied by some Spaniards and French, he assumed the purple, and the title of *Jacques I., emperor of Hayti*. His reign was short, and, though some sagacious measures were adopted for the government and improvement of the people, yet his tyranny rendered him universally detested. He was slain by a military conspiracy in October, 1806. Christophe, his second in command, immediately assumed the administration of affairs, under the title of *chief of the government*. Petion, however, another chief, appeared as a candidate for the sovereign power, and the struggle between him and Christophe was long and fierce. A severe battle was fought January 1, 1807, in which Petion was defeated. Christophe's progress to supreme power was similar to that of Dessalines. In 1807, he was appointed chief magistrate for life, with the power of naming his successor, and, in 1811, he changed the title to that of *king*, calling himself *Henry I.* The office was made hereditary in his family. From 1810 to 1820, the part of Hayti formerly belonging to the French, was under distinct and rival governments. In the north was the kingdom of Christophe, and in the south a republic existed, at the head of which was Petion, who possessed both sagacity and virtue. In 1816, he was appointed president for life, and retained the office until May, 1818, when he died, universally lamented by his fellow citizens. Christophe (q. v.) was an avaricious and cruel despot, and perished in a military revolution, in October, 1820. In consequence of this event, the whole colony has been united under Boyer, the successor of Petion in the office of president, who is said to possess many of the virtues of his predecessor. That part of the island which was originally settled by the Spaniards, remained in their hands until December, 1821, when it followed the example of the inhabitants of the north-western part, and voluntarily placed itself under the government of president Boyer, who thus peaceably became master of the whole island. In 1825, Boyer negotiated an absurd arrangement with France, by which Charles X., by royal ordinance, dated April 17, 1825, acknowledged the independence of the inhabitants of the French part of the island, in consideration of which Boyer stipulated to pay to France 150,000,000 of francs, as an indemnity for the ex-colonists, in five annual instalments.

HAZEL *(corylus)*; a genus of plants of the family *amentaceæ*, containing five species, all confined to the northern hemisphere. They are shrubs or small trees, with simple, alternate leaves. The male flowers are in long, cylindrical aments or catkins; and the fruit, consisting of a nut, marked, at base, with a large cicatrix, is enveloped in the persistent calyx, which is irregularly toothed on the margin. The European hasel (*C. avellana*), from cultivation, has produced several varieties, differing in the size, shape, and flavour of the nuts, which are commonly known under the name of *filberts*, and are imported to some extent. It grows in all situations, and is easily cultivated, but a light and tolerably dry soil is the most suitable. This plant has also gained celebrity from its twigs being believed, by the common people, capable of pointing to hidden treasures, when in the hands of certain persons. (See *Divining Rod*, and *Rhabdomancy*.) The twigs of the witch hazel (*hamamelis*) have been employed by impostors, in this country, to delude the public in a similar manner. The American hasel (*C. Americana*) very much resembles the European, but is humbler in stature, and the calyx is larger than the included nut. The flavour of the kernel is, by many, preferred to the filbert, though we know of no attempts to improve it by cultivation. It is common in most parts of the United States of America. The *C. rostrata*, distinguished by having the calyx prolonged beyond the fruit, in form of a long beak, and very hairy, is much rarer than the preceding. Both the hasel and filbert are much esteemed, but particularly the latter, the flavour of its kernels being very delicious. They are, however, difficult of digestion, and, when eaten in large quantities, sometimes produce very unpleasant effects. The oil which is obtained from hasel-nuts, by pressure, is little inferior in flavour to that of almonds; and, under the name of *nut-oil*, is often preferred, by painters, on account of its drying more readily than any other of the same quality. Chemists employ it as the basis of fragrant oils artificially prepared, because it easily combines with, and retains odours. This oil is found serviceable in obstinate coughs. If nuts be put into earthen pots and well closed, and afterwards buried eighteen inches or two feet deep in the earth, they may be kept sound through the winter. In many parts of England, hasels are planted in coppices and hedge-rows for several useful purposes, but particularly to be cut down, periodically, for charcoal, poles, fishing-rods, &c. Being extremely tough and flexible, the branches are used for making hurdles, crates, and springles to fasten down thatch. They are formed into spars, handles for implements of husbandry, and, when split, are bent into hoops for casks. Charcoal made from hasel is much in request for forges; and, when prepared in a particular manner, is used, by painters and engravers, to draw their outlines. The roots are used by cabinet-makers for veneering; and, in Italy, the chips of hasel are sometimes put into turbid wine for the purpose of fining it.

HAZLITT, WILLIAM, a distinguished modern critic and essayist, was a native of Shropshire. His father was an Unitarian minister, who came originally from the north of Ireland, and who, after residing for some time in the above-named county, in another period of his life held a situation in the University of Glasgow, under the celebrated Dr Adam Smith; he likewise went over to America, where he remained for nine years. He died at the age of eighty.

Mr Hazlitt was educated at the Unitarian college at Hackney. He began life as an artist, and there obtained a knowledge of art, which qualified him for the criticism in which he was afterwards engaged. Through life he seems to have entertained an intense love for the fine arts. Some copies of his from pictures in the Louvre, by Titian and Raphael, have been spoken of as very spirited and beautiful.

From some cause with which we are unacquainted, Mr Hazlitt was induced to relinquish the pencil for the pen: instead of painting pictures, it became his delight to criticise them; and it must be allowed that in his critical strictures, when his strong and violent prejudices stood not in the way of justice, he was one of the most judicious, able, and powerful writers of his time. His early education qualified him to judge with technical understanding; and his fine sense of the grand and of the beautiful enabled him duly to appreciate the merits and deficiencies of works of art, and to regulate the enthusiasm with which he contemplated their beauties.

Mr Haslitt's first acknowledged literary production was "An Essay on the Principles of Human Action," in which much metaphysical acuteness seems to have been displayed. In 1808, he published, in two volumes octavo, "The Eloquence of the British Senate; being a Selection of the best Speeches of the most distinguished Parliamentary Speakers, from the beginning of the Reign of Charles I., to the present Time; with Notes, biographical, critical, and explanatory." In 1810, "A new and improved English Grammar, for the use of Schools; in which the Discoveries of Mr Horne Tooke, and other modern Writers on the Formation of Language, are for the first time incorporated." To which was added, "A New Guide to the English Tongue, by Edward Baldwyn," printed together in 12mo. Mr Baldwyn published a smaller abridgement of Mr Haslitt's book, in 1812, 18mo. In conjunction with Mr Leigh Hunt, he next wrote a series of Weekly Essays in the Examiner, afterwards published in 1817, under the title of "The Round Table; a Collection of Essays on Literature, Men, and Manners," two vols. 8vo. In the same year he published an octavo volume, "Characters of Shakspeare's Plays;" and, in 1818, "A View of the English Stage; containing a Series of Dramatic Criticism." In 1818, Mr Haslitt was engaged to deliver some Lectures on English Poetry, at the Surrey Institution; they were published in an octavo volume.

Among the most popular of his writings are several volumes collected from periodical works, under the titles of "Table Talk," "The Spirit of the Age," and "The Plain Speaker." His largest and most elaborate performance is "The Life of Napoleon," which is in four volumes. In this, though tinged with party feeling, the writer displays much deep philosophical remark. Mr Haslitt was one of the writers in the Supplement to the Encyclopedia Britannica; he has also published "Political Essays and Sketches of Public Characters," an account of "British Galleries of Art," "A Letter to William Gifford, Esq.," "The Literature of the Elizabethan Age," and "The Modern Pygmalion."

In 1828, he published a volume of "Notes on a Journey through France and Italy." At the very moment, as it were, of his death, his last labour issued from the press in an exceedingly pleasant and amusing volume, entitled, "Conversations of James Northcote, Esq. R. A., by William Haslitt." Many, if not all, of these "Conversations," had previously appeared as detached papers in the New Monthly Magazine.

Mr Haslitt's death, which occurred in Frith Street, Soho, London, on the 18th of September, 1830, was occasioned by an organic disease of the stomach of many years' standing. He retained the entire possession of his faculties to the last; and, almost free from bodily pain, he died with perfect calmness of mind. His funeral, at St Ann's, Soho, on the 25th of September, was strictly private. He was twice married, and left an only son.

Soon after his death, a character of him appeared in the Atlas; from which the following are extracts:—

"It is said that accident made Haslitt a writer. He was originally a painter, or pursued his earliest studies with that end in view. But his taste was not satisfied with his labours: he never could imbody his own conceptions, or transfer to the canvass his own principles complete. Instead of practising the art, he expounded it. Connected with the philosophical examination of painting and sculpture, the drama and the theatre came naturally within his inquiries. Into these subjects he poured the tide of his luminous mind, and soon acquired the reputation of being one of the highest critical authorities on the drama and the fine arts. He penetrated boldly, and wrote graphically; and whether his opinions were always profound or just, you felt that they were dexterously said, and hardly cared to question farther.

"Much has been said of the caustic bitterness of his style when occasion demanded it, and the public have not hesitated to ascribe it to his natural disposition. The inference was hasty and erroneous. Haslitt was mild, even to a child's temper; he was self-willed, but who needed to have drawn out the venom? Had he been suffered to pursue his career at his ease, he would not have afforded grounds for charging malignity upon him. The malignity grew up elsewhere, and extracted from him all the gall that was in his heart. For some unaccountable reason, which Haslitt could never fathom, Blackwood's Magazine took an extraordinary pleasure in ridiculing him. They went beyond ridicule,—they made him appear all that was base in public and private, until at last his fame became a sort of dangerous notoriety. His political and religious opinions were represented in such odious colours, that even the booksellers,—our trading ones,—shrunk from the publication of his writings, as if they contained nothing but treason and blasphemy. That impression went abroad, and nearly ruined him. He attributed it solely to the writers in Blackwood, who painted him as a cockney of the worst description, mixing up wickedness with namby-pamby. It was not surprising that a man of Haslitt's solitary habits should feel and resent this in his brooding moods. He did resent it, and fearfully, and the passion of revenge was instilled into his being, subdued only by the imperious presence of philosophy. He had strong passions and affections; and they swelled the torrent. Those who charge him with evil should pause over the story of his agitated life.

"When you were first introduced to Haslitt, with this previous impression of his bold character on your mind, you were disappointed or astonished to meet an individual, nervous, low-spoken, and feeble, who lived on tea as a regimen. There was not a particle of energy about him ordinarily. His face when at repose, had none of the marks of extraordinary intellect, or even of animation. The common expression was that of pain, or rather the traces left by pain; it was languor and inertion. But when he kindled, a flush mantled over his sunken cheeks, his eyes lighted up wildly, his chest expanded, he looked like one inspired, his motions were eloquent, and his whole form partook of the enthusiasm. His conversation, generally, was ragged in expression, exceedingly careless as to phraseolgy, and not always clear in purport. He used the most familiar words, and, for ease-sake, fell into conventional turns of language, to save himself the trouble of explanation. This was not so, however, when he grew warmed. Then he sometimes mounted into sublime flights. But his conversational powers were, at the best, below his literary capacity."

HEAD; the part of the animal body which contains the brain and the higher organs of sense. In many animals, it is connected with the trunk, by the neck, and is more or less movable; in some animals, however, it is immovable, and is merely a prolongation of the trunk. The head in animals is more distinct in proportion as the brain is more fully developed as the centre of the nervous system. It is entirely wanting in the lowest classes of animals, which therefore, from the intestinal worms downward, form a third class, in the system of Latreille, under the name of *acephala* (headless animals), while those provided with heads are divided into two classes, the *vertebral animals*, having distinct and proper heads, and the *cephalidia*, having small and less distinctly

formed heads. In this part the mouth (q. v.), as the opening of the œsophagus, is always situated. In the second class of animals, in which the head is less distinct, that part of the body which is provided with the mouth, may be called the *head end*. In the vertebral animals (mammalia, birds, reptiles, and fish), the head has a bony basis (cartilaginous only in the cartilaginous fishes). In fishes, the bones of the head are not united with each other; and the formation of the separate bones is various. In cartilaginous fishes, the head is more or less oblong and angular; in osseous fishes, it is less flattened, and composed of a considerable number of bones connected in various ways; in all fishes, the cavity of the brain is very small and oblong. Equally various is the formation of the head in the different classes of reptiles. In general, the head is composed of few bones, and more rounded in proportion as the brain is more developed. In birds, the bones of the head are more closely formed into one whole, constituting a skull more or less round, which contains the brain, and to the fore part of which the beak is attached. But the head is most perfect in the mammalia, and resembles the human head more nearly as the animal approaches more nearly to man. In general, the human head may be considered as the standard, which may be traced, with gradual deviations, through the different classes, until it entirely ceases in the lower orders of animals. Nowhere is its proper office, to serve for the reception of the nervous system, so distinct as in the human head; the cavity of the skull containing the principal organ of sensitive life—the brain; as the great cavities of the trunk contain—the chest, the organs of irritable life (the heart and lungs), and the abdominal cavity, the organs of the reproductive life (the organs of digestion and generation). The superiority of the head over the other two parts just mentioned, appears also from the circumstances, that whilst it is preeminently the seat of the nervous system, it also contains organs essential for functions of the irritable and reproductive system; as the inspiration and expiration of the air are effected through the nostrils and mouth, and the entrance of food into the abdominal cavity, as well as the preparation of it for digestion, by mastication and the production of saliva, is effected by the mouth; and these organs appear more prominent, in the heads of animals, as their sensitive system sinks lower in the scale. It must not be forgotten, that the head also contains the tongue, an organ not only important in respect to nourishment, but also communicating the desires and thoughts, until it becomes in man the organ of oral intercourse, of language, and of the finest music —singing. The human head, and, more or less, the head of other animals, is divided into two chief parts, the skull and the face. The importance of the head as the noblest part of the animal system, has occasioned it to be used metaphorically, in all languages, to denote that which is chief. See *Ear*, *Eye*, *Face*, *Skull*.

HEALTH is that condition of the living body, in which all the vital, natural, and animal functions, are performed easily and perfectly, and unattended with pain. The *vital* functions comprehend the circulation of the blood, and the motion of the heart and lungs. The *natural* functions again are those of digestion, secretion, and discharge of the various fluids, prepared within the human body, either for the purpose of replacing those which are expended, or for throwing off, and evacuating those particles, which are become useless and hurtful. Arising out of these again, are the *animal* functions, such as the exercise of the external senses, the powers of volition and locomotion, and all the mental faculties. The most perfect state of health, is generally connected with a certain conformation and structure of the bodily organs, and well marked by certain external figures and signs. These are a well proportioned body, neither tall nor very short, neither lean nor fat, rather stout than slender, with an open full chest and breadth of shoulders; the bones somewhat large, the muscles fleshy and well marked, firm and strong; skin soft, never dry, but rather slightly moist; the colour, especially of the face, steady, and not variable, whether fair or brown, provided it be not very fair nor very sallow; the countenance open and cheerful, bright quick eyes, teeth sound and strong, the step firm and elastic, walk erect, all exercise performed with ease and freedom, and even severe, and long continued labour neither exhausting nor deranging the system; the organs of the external senses neither too acute nor dull, sleep calm and continued, not disturbed, but refreshing and unattended by frightful dreams; in sleep a perfect oblivion of all the cares of life, in which the mind is only soothed with agreeable visions. In good health, also, there is a calm and regular circulation of the blood, the pulsations of the heart and arteries are strong, full, and equal; neither too frequent, nor too slow, and not easily hurried; a full, free, and almost imperceptible respiration, not easily quickened; a strong sonorous voice, and of a grave tone in men, not easily rendered hoarse; the breath from the lungs agreeable or at least quite free from any fetor; the mouth moist and the tongue clean, but not too red; appetite good, not requiring the aid of spices or condiments; thirst moderate, digestion easy and good, without eructations or uneasiness of stomach; discharge from the bowels of a natural form, odour, and consistence, and occurring once a day; urine easily retained, and voided with facility, although varying in quantity, colour, and thickness, according to the quantity of food, drink, and exercise, and heat of the weather, depositing a proper sediment on standing, and the slower the deposition the better; perspiration of the skin free and regular, and neither too copious nor too scanty.

Healthy people, also, should possess the power of withstanding the variations of the atmosphere with impunity.

To preserve health, it is necessary to be temperate in food, exercise, and sleep, and to pay strict attention to bodily cleanliness, abstaining from spirituous liquors, and the over indulgence of sensual gratifications.

HEARING. See *Ear* and *Sound*.

HEARNE, Samuel; an English traveller in the service of the Hudson's bay company. He was employed, in 1769, to explore the north-western part of the American continent. The narrative of his researches, published after his death, which occurred in 1792, is entitled a Journey from the Prince of Wales's Fort, in Hudson's Bay, to the Northern Ocean (1795, 4to).

HEART; a hollow, muscular organ, the function of which is to maintain the circulation of the blood, and which is of different formations in different animals. The organs of circulation are the heart, the arteries, the veins (see *Blood Vessels*), and the capillary vessels. The blood is divided into the arterial blood and the venous blood. The object of the circulation is to carry the venous blood, which has returned from the body, into the lungs, where, by the influence of the air, it is converted into arterial blood, which is then again sent out into the system, to nourish it and repair its losses. The heart in man, quadrupeds, and birds is composed of four cavities, two auricles and two ventricles (hence called *double*). It is enveloped in a membrane called the

pericardium, situated toward the left of the cavity of the chest, between the lungs, and resting on the diaphragm. Its form is that of a cone flattened on its inferior and superior faces, the latter formed principally by the right, the former by the left auricle and ventricle. The right auricle communicates with the right ventricle, besides which there are in it three openings, that of the *vena cava inferior*, that of the *vena cava superior*, and that of the coronary vein. The communication between this auricle and ventricle is closed by a valve when the heart contracts. The right or pulmonary ventricle communicates with the pulmonary artery, which is provided with three valves. When these valves are brought together, they interrupt the communication between the ventricle and the artery. The left auricle communicates with the left ventricle, and contains also the orifices of the four pulmonary veins. The left ventricle, besides the communication with the left auricle, contains the orifice of the aorta. The ventricles are divided from each other by a fleshy wall, called the *septum cordis*. The valves at the openings of the arteries are called *semilunar;* that at the orifice of the right auricle, *tricuspid;* that at the orifice of the left auricle, *mitral;* and that at the orifice of the *vena cava inferior*, the *Eustachian* valve. The heart is formed of a firm, thick, muscular tissue, composed of fibres, interlacing with each other. It is also composed of nerves, membranes, and vessels. The coronary arteries arise from the aorta, and are distributed on the heart. The coronary veins return the blood of the heart into the right auricle. The arteries (from the Greek *αηρ*, *air*, and *τηρεω*, *to preserve*, because they were thought to contain air) are the vessels which serve to carry the blood from the heart to all parts of the body. They terminate in the capillary vessels—a series of extremely minute vessels, which pass over into the veins. The veins are the channels by which the blood passes back from the body into the auricles of the heart. The blood which is returned from the veins is black, and is called *venous;* that which leaves the heart is red, and is called *arterial*. The red blood, possessing nourishing and vital properties, rises in the capillary system of the lungs, flows into the pulmonary veins, thence is received into the left cavities of the heart, from which it passes into the aorta, and is transmitted to all parts of the body, to the capillary system. It there loses two degrees of temperature, and undergoes other changes, by the loss of some of its elements in the important functions of nutrition, calorification, and the secretions. It is now become black, passes through the veins, from the extremities of the body towards the heart, receives the chyle and the lymph, and is emptied into the right cavities of that organ, which returns it, through the pulmonary artery, to the capillary vessels of the lungs, where it is subjected to the influence of the air, resumes the qualities of red or arterial blood, and is ready for a new course.

Having thus described the route of the blood through the different parts of the system, we will now explain the mechanism of the sanguineous system. The blood contained in the two *venæ cavæ* is poured into the right auricle, which contracts, and thus forces the fluid to escape; but the *vena cava superior* opposes to its passage the column of blood which it contains, the other veins are closed by valves, and it must therefore pass into the right ventricle. The ventricle then contracts, and the tricuspid valve closing the passage through which the liquid entered, it is forced forward into the pulmonary artery, which contracts, and its orifice being closed by the semilunar valve, propels the blood still forward into the capillary system of the lungs, whence it passes into the pulmonary veins, which pour it into the left auricle by their four orifices. The contraction of the auricle impels it into the left ventricle, by which it is, in the same manner, driven forward into the aorta (the mitral valve preventing its return into the auricle), and thence into the general circulation as above described. The two auricles contract and dilate simultaneously with each other, as do also the two ventricles. The dilatation is called *diastole;* the contraction *systole*. It is difficult to determine what quantity of blood the heart projects at each systole. It is generally estimated at two ounces. The causes of the alternate contraction and dilatation of the heart are not less difficult to decide. They are entirely involuntary and dependent on the nervous system. The force of its contractions is likewise unknown. The systole of the ventricles is the cause of the motion of the blood in the arteries, which also dilate with each wave driven into them by the motion of the heart. By what means the blood is made to penetrate the thousand windings of the capillary system, and what causes impel it to flow back through the veins, are yet subjects of dispute among physiologists. The time in which a drop of blood completes its circle of motion, has been differently estimated, at from twenty-four hours to two minutes.

Among the lower orders of animals, the organisation of the circulating system is very different. The infusoria, polypi, and intestinal worms have no distinct vessels, much less a heart; the echinodermata have distinct organs of circulation, but no part resembling a heart. Insects have a small cylindrical vessel, running along the back, which is rather the rudiment of a vascular system, than of a heart. The first traces of a heart are found in some worms, in which some expansions are perceptible in a part of the vessel which runs the whole length of the body. In the spiders, lateral vessels are given off from the main vessel, and a pulsation is perceptible. The crustacea have a heart composed of one fleshy ventricle. In the mollusca, the heart appears completely formed; some of them have three cavities. The four classes of vertebral animals have red blood, but fishes and reptiles have only what is called a *single heart*, that is, composed of one auricle and one ventricle.

HEART'S-EASE. See *Violet*.

HEAT. See *Caloric*, and *Animal Heat*.

HEATH *(erica)*; a beautiful genus of shrubby plants, admired on account of their lasting verdure, their light foliage, and the elegance of their flowers. Their leaves are simple and entire; their flowers oval, cylindrical, or even swelled at the base, resembling those of *vaccinium* and *andromeda*, to which genera they are allied; the corolla is four-cleft; the stamens eight, terminated by anthers, which are usually notched or bi-aristate at the summit. More than 250 species are known, twelve or fifteen of which inhabit Europe, and have small flowers, whilst all the remainder are natives of South Africa, many of them bearing large and brilliantly coloured flowers, forming one of the most characteristic genera of that singular region, where, however, according to Burchell, their range is very limited, the whole tribe totally disappearing on approaching the tropic from the cape. They are very difficult of cultivation. The common heath of Europe *(E. vulgaris)*, a low shrub, often covers, exclusively, extensive tracts of barren land, and is used in domestic economy: mixed with oak bark, it is employed in tanning; and, also, when tender, for fodder. Notwithstanding the depth to which the roots penetrate, and the difficulty of exterminating it, such has been the progress of agriculture in Great Britain, that a considerable portion of these tracts have been reclaimed.

HEATHFIELD, Lord. See *Eliott*.

HEAVEN, in a physical sense, is the azure vault

which spreads above us like a hollow hemisphere, and appears to rest on the limits of the horison. Modern astronomy has taught us, that this blue vault is, in fact, the immeasurable space in which our earth, the sun, and all the planets, with the countless host of fixed stars, revolve. The blue colour of the heavens is, according to Nollet, an effect of the light of the sun and stars. According to this explanation, the boundless fields of unillumined space must, like all things else in the absence of light, appear black; but the light of the celestial bodies, which is reflected by the earth to the air, and thence again to the earth, occasions the blue colour. Saussure derives the blue colour, indeed, from the reflected light, but attributes the reflection not to the air, but to the vapours which it contains. He supports his opinion in this way: that if this were owing to the reflection of light from the air, glaciers and mountains covered with snow, seen at a distance of seventy to ninety miles, would appear blue. That the rays of light are, in fact, reflected by the vapours in the atmosphere, appears also from this circumstance, that the heavens, seen from a high mountain, appear of a much darker blue than when seen from a plain; and even from this last situation, the blue is very different at different times, and appears dark in proportion to the purity of the atmosphere. Saussure, on the basis of these observations, has invented an apparatus, called a *cyanometer*, in order to determine the quantity of vapour in the atmosphere, from the degree of blueness in the colour of the sky.

Heaven, in the ancient astronomy, denoted an orb or circular region of the ethereal heaven. The ancient astronomers assumed as many different heavens as they observed different celestial motions. These they supposed to be all solid, thinking they could not otherwise sustain the bodies fixed in them; and spherical, that being the most proper form for motion. Thus they have seven heavens for the seven planets, the Moon, Mercury, Venus, the Sun, Mars, Jupiter, and Saturn. The eighth was that of the fixed stars, which was particularly denominated the *firmament*. Ptolemy adds a ninth heaven, which he calls the *primum mobile*. After him, two crystalline heavens were added by Alphonso, king of Castile, to account for some irregularities in the motions of the other heavens; and lastly, an empyrean heaven was drawn over the whole for the residence of the Deity; which made, in all, twelve heavens. But others admitted many more heavens, according as their different views and hypotheses required: Eudoxus supposed twenty-three; Regiomontanus, thirty-three; Aristotle, forty-seven; and Fracaster no less than seventy.

HEAVY SPAR. See *Barytes, Sulphate of.*

HEBE; the goddess of youth, and the cup-bearer on Olympus, a daughter of Jupiter and Juno, who gave her as a wife to Hercules, in reward of his achievements. In the arts she is represented with the cup in which she presents the nectar, under the figure of a charming young girl, her dress adorned with roses, and wearing a wreath of flowers. An eagle often stands beside her (as at the side of Ganymede), which she is caressing.

HEBER, Reginald, D. D., bishop of Calcutta, was born April 21, 1783, at Malpas, in Cheshire, and, in 1800, was sent to Brasen-nose college, Oxford. In 1802, he obtained a university prize for a copy of Latin hexameters; and the following year he greatly distinguished himself by another prize poem —Palestine—in English. He was elected to a fellowship in All Souls' college, and, soon after travelled in Germany, Russia, and the Crimea, and made observations, from which many curious extracts were published in the travels of doctor E. D. Clarke. Having returned home, he published an English poem entitled Europe, Lines on the present War (1809.) About the same time, he was presented to the family living of Hodnet, and he married Amelia, daughter of the reverend W. Shipley, dean of St. Asaph. For several years subsequently, he devoted himself, with great assiduity, to his duties as a parochial priest. In 1822 appeared his life of Jeremy Taylor, with a review of his writings. On the death of bishop Middleton, he was offered the see of Calcutta, which he accepted, and, June 16, 1823, embarked for the East Indies. On Ascension day, 1824, bishop Heber held his first visitation, in the cathedral of Calcutta; and he subsequently made progress through various parts of his very extensive diocese, consecrating churches, and taking the appropriate steps for extending the knowledge of Christianity among the Hindoos. Having taken a journey in the discharge of his episcopal duty, he arrived at Trichinopoli, April 1, 1826; and, on the next day, while bathing, he was seized with an apoplectic fit, which terminated his existence. Since the death of this prelate, has been published, a Narrative of a Journey through the Upper Provinces of India, from Calcutta to Bombay (2 vols., 4to, new edition, 3 vols., 8vo). His widow has also published his biography (2 vols., 4to, London, 1830.

HEBERT, James René, notorious during the French revolution, was born at Alençon, in the department of the Orne, about 1755. When yet very young, he went to Paris, where he supported himself by very dishonourable methods. Employed as a checque-taker at the *Théâtre des Variétés*, he was dismissed for dishonesty; after which he lived with a physician, whom he ungratefully robbed. At the beginning of the French revolution, Lemaire published a journal supporting constitutional principles, under the title *Père Duchêne*, which was distributed in the streets. The Jacobins soon established another paper, also called *Père Duchêne*, and Hébert became editor. It owed its success to the warmth and virulence with which he advocated the popular cause, and abused the court and the monarchy. August 10, 1792, he became one of the members of the municipality of Paris, which contributed to the massacre in the prisons in the following September. Hébert was soon after nominated attorney-general of the commune, and employed all his influence in forwarding a project to establish the authority of the commune on the ruins of the national representation. The Hebertists rejected the advances of the Orleans party, and separated from the Cordeliers, of which they had hitherto formed a part. The Girondists, who were at that period contending against the Mountain, had credit enough to produce the arrest of Hébert, May 24, 1793. He was defended by Marat in the convention; the deputies of all the sections spoke in his favour at the bar on the twenty-fifth, and on the twenty-seventh, after a tempestuous session, he was again restored to liberty. Prompted by revenge, as well as other motives, he assisted with all his power and influence in the proscription of the Brissotins. Their downfall hastened his own. He established the feast of reason, and afterwards charged Danton of having violated the nature of liberty and the rights of mankind. This terrified both Danton and Robespierre; they suspended their animosities to accomplish his destruction; and Hébert, with the greater part of his associates, was arrested and condemned to death, March 24, 1794. Many of the numberless victims died in a more cowardly manner. Besides his journal, he was the author of many other political pieces of a similar description. Among the crimes of this man were the calumnies with which he assailed the character of the queen of France. It

wife, a former nun, was executed a few days after him.

HEBREWS. The appellation of *Hebrew*, so far as we can learn from history, was first given to Abraham by the people of Canaan, among whom he dwelt. *Gen.* xiv. 13. It seems to have been applied to him on account of his emigration (about 2000 B. C.) from Mesopotamia, beyond the Euphrates, into the land of Canaan (Palestine.) Some, however, consider it as a patronymic derived from Heber, great-grandson of Shem, from whom Abraham was descended. Whatever meaning was attached to the term *Hebrews* before the time of Jacob (Israel), it appears afterwards to have been limited to his posterity, and to have been synonymous with *Israelites*. This singular people, which has exercised a more permanent and extensive influence by its religion, than polished Greece by her taste, or triumphant Rome by her arms; which has survived the last wrecks of its palaces and cities, and the annihilation of its political existence as a state; and which presents the wonderful spectacle of a race preserving its peculiarities of worship, doctrine, language, and feelings in a dispersion of 1800 years over the whole globe,—presents to the mere philosopher a not less important subject of contemplation than to the theologian, who reads in its history a series of direct and striking interpositions of Providence. (See Bossuet, *Histoire Universelle.*) Its history reaches back to the earliest periods of the world; its code of laws has been studied and imitated by legislators of other ages and distant countries, and the two religions, which now divide the greater part of the civilised world, have been engrafted on the stock planted by the children of Abraham. The Hebrew history begins with the patriarch of the nation, with Abraham, but that of the Hebrew state with the acquisition of Palestine.

I. *The History of the Hebrews, as a Nomadic Nation, from Abraham till the Establishment of their State in Palestine, B. C.* 2000—1500. Under Abraham, Isaac, and Jacob, they merely formed one nomadic family, whose history exhibits pictures of the wild hunter, the migratory herdsman and the incipient husbandman, and in which we already find the worship of one God, the rite of circumcision, and other traits of the future nation. It was in Lower Egypt, however, whither Israel had migrated, and where his descendants resided 430, or, according to some, 250 years, that they became a powerful nation. Joseph, having become grand vizier of Egypt, assigns his brothers a residence in the fertile Goshen. They increase rapidly, and become formidable to the Egyptian monarchs, who require them to build and inhabit cities. The oppressions to which they are subjected, lead them to flee from the tyranny of their lord masters, and they find a leader and deliverer in a lonely exile, who had forty years before committed the crime of slaying an Egyptian officer, and had since resided on the borders of Arabia, tending the flocks of his father-in-law. (See *Moses.*) The number which left Egypt was 603,550 fighting men, exclusive of the Levites. This unarmed, or, at least, unwarlike crowd, is pursued by the Egyptians, but escapes across an arm of the Red sea, the waters of which swallow up the chariots and horsemen of the pursuers. Niebuhr thinks that this passage was effected near Sues, where he himself forded the sea, which is about two miles across. Burckhardt is of the same opinion. The law, a code at once moral, religious, and political, is given to the Hebrews from mount Sinai; God himself is their leader, their king; the constitution is strictly theocratic; a violation of it is sacrilege, and is attended with punishments from heaven; the possession of Palestine is assured to them and they set forward again for the promised land. On arriving at the frontiers of their new country, their spies bring them back word, that it is occupied by fierce and warlike people, and they immediately demand to be led back to Egypt. But Moses determines to conduct them again into the desert, to form a new generation of bold and hardy warriors; there they pass thirty-eight years as a nomadic nation. After the death of their great lawgiver, on the summit of mount Nebo, the Hebrews entered the land which contained the bones of their fathers, and the long promised streams and mountains of their God. Joshua assumed the command, led them across the Jordan, and, after a contest of seven years, obtained possession of the country.

II. *Period of the Federative Republic from the Conquest of Palestine to the Establishment of the Monarchy,* 1500—1100. This period of 400 years may be considered as the heroic age of the nation, which, after its gradual transition to stationary abodes and agriculture, lived in constant disputes with its neighbours, the Arab nomades, the Philistines, and the Edomites. The country was divided among twelve tribes; viz. the ten tribes of the sons of Jacob —Reuben, Simeon, Judah, Dan, Napthali, Gad, Asher, Issachar, Zebulon, and Benjamin, and the two tribes of the sons of Joseph, Ephraim and Manasseh; the tribes of Reuben, Gad, and half Manasseh being on the east of the Jordan. The tribes were kept distinct, each preserving its chief and elders, as in the nomadic constitution; but the worship of Jehovah was a common bond of union, which formed them into a federal state. The preservation of the confederacy and of the Mosaic law, was especially provided for by the distribution of the Levites (a caste of priests) in forty-eight cities throughout the country, and by making the high-priesthood (see *High-Priest*) hereditary in the family of Aaron. The judges (*sophetim*), who appear in times of emergency, delivering their country from the foreign yoke to which it was repeatedly subjected, were active and heroic military leaders, whose authority extended sometimes over a greater, sometimes over a less number of tribes, according to circumstances, and ceased with the cessation of the danger. Disobedient to the command of Moses to exterminate the former inhabitants of the soil, the Hebrews were often false to their God and their theocratic constitution; and their folly, if not impiety, was punished by internal disorders, and subjection to the hated and despised heathen. During eight years, they were oppressed by the Mesopotamian king Cushan-Rishathaim, from whose yoke they were delivered by Othniel; eighteen years of Moabitish and twenty of Canaanitish servitude (from which they were delivered by the heroic exertions of Deborah), were followed by seven years of devastation by the wild Midianites, who were destroyed by Gideon. Jephtha, a captain of freebooters, expelled the Ammonites, who had overrun nearly the whole country, and offered up his daughter as the price of the deliverance. The incursions of these Bedouin hordes were desolating, but transient. The longer oppression of the Philistines, to which even the strength and courage of Samson could not put an end, was accompanied with the captivity of the ark of the covenant, and seemed to threaten the destruction of the state. But Samuel (q. v.), at once a prophet and a judge, restored the worship of Jehovah, reformed the manners of the people, and forced the Philistines to evacuate the country. His design of rendering the judicial dignity hereditary in his family, was frustrated by the corrupt character of his sons; and the nation demanded a king. Samuel nominated Saul, a youth of a tall person, but of no political importance, to the throne, and a formal constitution was drawn up for the new monarchy, and deposited in the ark.

III. *Period of the Monarchy from* 1100 *to* 600.

1. *The Jewish State as one Kingdom, from* 1095 *to* 975. The king was little more than the military leader of the nation, bound to act according to the commands of Jehovah, without a court or permanent residence. The nation was still a mere agricultural and pastoral people, without wealth or luxury, but gradually acquiring a more warlike character. Saul gained some victories, and was acknowledged king at an assembly of the people, in which Samuel resigned his dignity of Judge. But the victorious monarch was unwilling to submit to the dictation of the prophet, and ventured to consult Jehovah himself. The offended Samuel secretly anointed another king, the young shepherd, David, son of Jesse, who finally succeeded to the Hebrew throne on the death of Saul. He was at first acknowledged only by his own tribe, that of Judah. The eleven other tribes declared for Ishbosheth, son of Saul. On the death of the former, however, David became king of the whole nation. His reign (1055—1015) is the era of an entire change in the constitution of the state and the condition of the nation. By his brilliant victories over the Jebusites, Philistines, Amalekites, Idumæans, Moabites, Ammonites and Zeba, the state received large additions by way of conquest, and his kingdom extended from the Euphrates to the Mediterranean, and from Phœnicia to the Arabian gulf. A new residence was fixed at Jerusalem, which was intended to be the seat of a national sanctuary. The strict observance of the worship of Jehovah, as the exclusive national worship, was maintained; commerce was established, and the general cultivation of the nation promoted. At the same time, the foundation was laid for the future disunion and final decline of the state; for although the nation, during his reign and that of his son Solomon, reached the highest point of its power and prosperity, the excessive splendour of the religious worship appealed too much to the senses, and the introduction of foreign manners and customs enervated the national character and the moral simplicity of the people; too many of the conquered nations revolted, and the jealousy entertained by the other tribes of the ruling tribe, and the discontent of the people with their increasing burdens, afforded too many subjects of dissension, to allow of the long continuance of this golden age of Israel. The reign of Solomon (1015—975) was the splendid reign of an unwarlike, ostentatious, but cultivated monarch. The government was administered from the interior of the seraglio. The kingdom was organised anew for the maintenance of a luxurious court. (For an idea of the luxury of the Jews, consult professor Hartmann's *Die Hebräerin am Putztische*.) Foreign commerce was carried on as a monopoly of the crown, and a costly temple and palace were erected in the royal residence. But while the metropolis grew rich, the country was impoverished and oppressed by the profuse expenditures of the court. The gradual internal decline was hastened by the introduction of the worship of foreign gods, and Syria, which had been gained by conquest, was lost. Rehoboam was so little able to avert the threatening storm, that he succeeded to the government of only two tribes, Judah and Benjamin; the ten other tribes formed the kingdom of Israel under Jeroboam.

2. *The Jewish State as a divided Kingdom*; 975—588. The capital of Israel was at first Sichem, afterwards Samaria; that of Judah was Jerusalem. Although Israel was larger and more populous, Judah was richer, and in possession of the national temple and the priesthood, so that the power of the states was nearly equal, and the contest between them obstinate. The kings of Israel endeavoured to confirm the political division of the nation by establishing a sanctuary in their own territory, and prohibiting their subjects from visiting the ancient national sanctuary in Jerusalem. They were therefore denominated enemies of Jehovah. Even in the kingdom of Judah, some of the kings introduced the service of other gods. But oppression itself preserved the worship of Jehovah. The number and political importance of the prophets increased, the more the oracles of God were rendered necessary by troubles. The notion of a future period of prosperity under a powerful king, the idea of a Messiah and his kingdom, was continually more and more developed and cherished. The jealousy and war between the two kingdoms not only continued with little interruption, but were rendered more dangerous by connexions with foreign princes, particularly with the kings of Damascus and Egypt, until these feeble states were destroyed by the more powerful empires of Asia. The kingdom of Israel survived the separation 253 years, under nineteen kings of different houses, who succeeded each other by means of violent revolutions. Shalmaneser, king of Assyria, took Samaria, the capital, and put an end to the kingdom of Israel, carrying away the inhabitants captive into the interior of Asia, B. C. 722. The kingdom of Judah existed, under twenty kings of the house of David, until 588. The throne passed successively from father to son, and the succession was only twice interrupted, by the usurpation of Athaliah and by foreign interference. Jehoshaphat (914—891) restored the worship of Jehovah. Hezekiah, in whose reign Isaiah prophesied (728—698), delivered his country from the tribute which Tiglath-Pileser had exacted in the reign of his predecessor. During the reign of Manasseh (699—644) the worship of the Phœnician Baal was introduced, and the laws of Moses fell into oblivion. Josiah (642—611) restored the temple and worship of Jehovah, recovered the lost book of the law, and introduced strict reforms according to it. In 606, Nebuchadnezzar rendered the country tributary to Babylon, and on a third invasion, in consequence of an attempt to throw off the Babylonian yoke, took Jerusalem (588), and carried away the inhabitants, who had been spared on his second campaign. After their return from the captivity, the name of *Hebrews* gave way to that of *Jews*, under which head their history will be continued.

Hebrew Language and Literature. The influence which the monotheism of the Hebrews has exerted over the civilization of the human race, through Christianity and Mohammedanism, gives to the old national documents, in which this religion has come down to us purer than in the worship of their descendants, the Jews, a universal historical importance. Hebrew literature, therefore, independently of its containing the records of a divine revelation, possesses a peculiar scientific interest. It surpasses in antiquity, general credibility, originality, poetic strength, and religious importance, that of any other nation before the Christian era, and contains the most remarkable memorials and trustworthy materials for the history of the human race, and its mental development.

Though the Hebrew is no longer to be considered as the original language of the human race (see Wahl's *General History of the Oriental Languages*, &c., Leipsic, 1784), yet it is evidently one of the oldest of the Shemitish languages (the Chaldee, Aramæan, Hebrew, Syriac, Arabic, Phœnician, and Æthiopian, so called on account of the supposed descent of these different nations from Shem, the son of Noah). In its formation, the following

periods are to be distinguished: 1. from Abraham to Moses, when the old Aramæan stock was changed by the influx of the Egyptian and Arabic; 2. from Moses, or the composition of the Pentateuch, to Solomon, when it attained its perfection, not without being influenced by the Phœnician; 3. from Solomon to Ezra, when, although increasing in beauty and richness, it became less pure, by the adoption of foreign ideas and idioms; 4. from Ezra to the end of the age of the Maccabees, when it was gradually lost in the modern Aramæan, and became a dead language. Traces of different dialects appear about the end of the third period; for after the captivity, the old Hebrew, the language of the manuscripts of the Old Testament that have come down to us, was distinguished under the name of *Jehudit*, that is, the Judaic language, from the Samaritan and Aramæan. The Hebrews had characters or letters as early as the beginning of the third period, until the captivity. Their written characters were the same as the Phœnician, to which the letters of the Samaritan manuscripts approach the nearest. During the Babylonish captivity, they received from the Chaldees the square character in common use; and in the time of Ezra, the old Hebrew manuscripts were copied in Chaldee characters. This character, according to some, had originally three vowel-points; but the position that the written vowel signs are of recent date, is now admitted by all critics of any note. The punctuation was not settled before the seventh century of the Christian era. (See *Masora.)* The introduction of the accents, and the division of the words, were also innovations of a late period. Thus the external form of the text had undergone many changes; and, as some critics believe, the contents of the books which now compose the Old Testament, cannot have come down to us perfectly unchanged. Moses, they say, wrote upon stone; for a long time after him the Hebrews appear to have engraved whatever they wished to perpetuate, only upon stone, brass, or wood, and not to have used, before the time of Samuel, and the school of the prophets established by him, any more convenient materials for writing, such as linen or papyrus, which alone, according to our ideas, could have made the origin of a literature possible. And even at this time, writing was very rare among all nations. Many books of the Old Testament, for example, the books of Moses, the book of Job, and some of the Psalms, evidently indicate an earlier origin. The supposition cannot therefore be avoided, that only their principal points were in part written by the authors to whom they are ascribed, and in part handed down by oral tradition, and that they were afterwards revised by later hands, completed from tradition, and collected into that form in which they now exist. The same is true in regard to the greatest part of the remaining books of the Old Testament, the composition of which, according to general opinion, belongs to the age before the captivity. The genuineness of the form, in which we possess them, can therefore be allowed only in a limited sense, by the Orientalists of our times. In this view, not only the arrangement, but much of the contents of the old Hebrew writings, especially the historical, must be considered as more or less the work of a later period than they were formerly considered to belong to. But the genuineness of the facts which they relate, and of the spirit which is peculiar to these books, can by no means be rendered doubtful by this circumstance. The scrupulous conscientiousness and veneration, with which the Hebrews regarded their sacred writings, even to the minutest particulars, must free them from the slightest suspicion of any arbitrary additions or alterations, even if it were not for the internal evidence derived from the peculiar character of each book, which is abundantly decisive of their genuineness. That much must have been lost from the treasures of Hebrew literature, which was very rich, particularly in the age of Solomon, is evident from passages in the Old Testament itself. But whatever, in the small part which we possess, has relation to the history of the Hebrews and religion, belongs, as to its substantial, historical, and religious contents, to the epochs to which it relates. Hence the succession of the different ages, into which the history of the Hebrews is divided (1. patriarchal, the first covenant with God; 2. Moses and the giving of laws (*Thorah);* 3. heroic ages under the judges, the theocratic republic; 4. the reign of David and Solomon, the theocratic monarchy; 5. the prophets, the contest of theocracy with monarchy; 6. the Babylonish exile; 7. the age after the return from captivity), appears in the gradual development of the spirit which breathes through their writings. The supposition of these works having been committed to writing at a comparatively late period, still remains good in this view. When, from the first period, the accounts contained in Genesis (see *Patriarchs, Abraham, Isaac, Jacob, Joseph),* from the second, the laws inscribed by Moses on stone, the fuller rules for the worship of God and the constitution of society, the historical accounts and hymns delivered by oral tradition (see *Moses),* and from the third, similar accounts (the contents of the books of Joshua, Judges, Ruth) had come down to the fourth period, the historical and poetical materials (the Pentateuch, or the five books of Moses, Joshua, Judges, the books of Samuel) were reduced to writing, and new poetical creations arose.

The Hebrew authors would find strong impulses to poetry in the pastoral life of their patriarchs, the beautiful and grand scenery of their country, in the wonderful history of their nation (their deliverance from Egyptian bondage, their struggles with nature and with hostile hordes during the forty years' wandering in the desert, and the wars under the judges), in the practice of singing at divine worship, in their passion for music, strengthened by this circumstance, and in the existence of an order of prophets (teachers and poets). (See Lowth, *De Sacra Poesi Hebræorum,* translated into English, and Herder's Spirit of Hebrew Poetry, 3d edition, by doctor Justi, in 2 volumes, Leipsic, 1825, a work of greater originality.) Poetry was the foundation of their literature. Lyric poetry prevailed under David, who was equally successful in song and elegy; didactic poetry under his successor, when attempts were likewise made in pastoral (Ruth) and the shorter epic. (See *David, Psalms, Solomon, Solomon's Song, Job.)* Strong religious feeling distinguished the spirit and subject of these poems. Never has the reverence for Jehovah's laws been displayed in a more lively manner than in the holy songs of David's time. On the contrary, Solomon, in his actions as well as in the writings which bear his name, inclines evidently to a philosophic and even worldly indifference, very remote from the Israelitish character. After the division of the kingdom, religion and literature alone preserved a residue of national vigour, and the prophets now became the instructers and comforters of this morally and politically degraded people, until the unfortunate time of the Babylonish captivity; before which, under the kings, lived Jonas, Joel, Amos, Hosea, Isaiah, Micah, Obadiah, Nahum and Habakkuk. During the captivity flourished Jeremiah, Ezekiel, Daniel, Zephaniah; and at the time of the return, Haggai, Zachariah, and Malachi. (For the circumstances of their lives, and the peculiar spirit of the writings which are known under their names, see *Prophets,* and the separate articles, *Isaiah, Jeremiah,* &c.)

These writings are, for the most part, later collections of their actions, discourses, and prophecies, the unequal extent of which has given occasion to the distinction of the *great prophets* (Isaiah, Jeremiah, Ezekiel, and Daniel) and the *minor prophets*. We have not even the works of the former complete, and evidently but fragments of the latter.

The period of the restitution of the Mosaic institution after the return from the captivity, was of the highest importance to the Hebrew literature, as Ezra established the great synagogue—a college of 120 learned men, to collect the ancient treasures; and Nehemiah, soon after him, preserved this or a new collection in the temple. (See *Jews*.) The design of these reformers, to give the Jews a religious canon in their old national writings, induces us to believe that they engaged in the work with the greatest fidelity to the old Mosaic institution; and it is certain, that the canon of the Old Testament, in the time of the Maccabees, was the same, as to the number and order of the books, as at present, and that the present division into historical, poetical, and prophetic, was then observable. To the historical belong, besides those collected in the time of David and Solomon, the books of the Kings and the Chronicles, which were compiled after the captivity, from the old annals of the kings, and the books of Ezra and Nehemiah. To the poetical belong Job, the Psalms, Solomon's Proverbs, Song and Ecclesiastes, the elegies called the Lamentations of Jeremiah, the book of Esther and the idyl of Ruth. The prophetic embraces the writings of the above named four great and twelve minor prophets.

The Mosaic religion is the all-prevailing soul of this literature. As, in the historical books, the selection and arrangement of the matter seem to depend upon the theocratic nature of the religion, and the religious feeling breathes throughout the poetical; so, likewise, anger and grief for the degeneracy of the people, threats against their apostasy, and consolations for the pious, are mingled in the prophetic writings. The promise of an anointed Messiah, who should raise the nation from its degradation, and restore the happy age of David, spreads through the productions of the prophets. But in the prophets who flourished during and after the Babylonish captivity, the influence of Chaldean dogmas, which were derived from the precepts of Zoroaster, and many alterations, which the peculiar notions of the Jews underwent in consequence of their destiny and their intercourse with foreign nations are perceptible. (See Gesenius, *Geschichte der Hebr. Sprache und Schrift*, Leipsic, 1815.) The best German grammars of the Hebrew language are those of Michaelis, Gute, Hesel, Pfeiffer, Jahn, Wesel, Vater, Wekherlin, Hartmann and Gesenius (q. v.); the best in English is by professor Moses Stuart. There are Hebrew and German lexicons by Castelli, Coccejus, Simonis, Michaelis, Schuls, and a later and more excellent one by Gesenius (translated by J. W. Gibbs, Andover, 1824). The translation has been reprinted in London. An abridgment by Mr Gibbs, was printed at Andover, 1828. See *Jews*, *Hellenists*, *Septuagint*, *Rabbinical Language and Literature*, and *Cabala*.

HEBRIDES, or WESTERN ISLANDS; a cluster of islands situated on the western coast of Scotland, in the Atlantic ocean. These islands in early times were successively overrun by different tribes from the continents of Scotland and Ireland, and by the northern rovers of Scandinavia. The ancient tales and traditions of the natives, which constitute the existing historical documents of this district, constantly refer to these irruptions; but they yield little that can be relied upon. The natives are evidently of the same stock with the inhabitants of Ireland and of the Highlands of Scotland: their language, manners, superstitions, and customs are the same. The tribes who settled among them in consequence of the Scandinavian conquests, between the ninth and twelfth centuries, were few in number in comparison with the population of the country, and were speedily absorbed by the native race.

The first written accounts which we have of the Hebridians, occur in the Chronicle of Mann; and these are scanty and confused; nor indeed is the loss of their history of much consequence during the latter periods, (or even from the reign of Alexander III.) when they were finally annexed, by a specific agreement, with the Scottish crown. What we regret most is the loss of their annals during the era of the introduction of Christianity and the age which preceded it, as well as that of their connexion with the Roman transactions in Britain.

That these extensive regions were at some former epoch possessed of a considerable population, and of resources far beyond what is commonly supposed, we may learn from the monuments of antiquity still visible in them. Castles built with astonishing skill in the midst of deep lakes; immense pillars of stone, plainly indicating the aid of mechanical powers to raise them, and the command of great numbers of men to carry them over ground impervious to cattle used for draught; watch-towers erected in places which, in point of judgment of selection, astonish the ablest engineers of modern times, and formed a regular chain of telegraphic communication; ruins of houses and of temples discovered deep under the present surface of the soil, or within the sea mark in some of the lower isles, and referring consequently to a remote antiquity; all these announce a degree of power, of wealth, and of civilisation totally incompatible with the ideas usually adopted with respect to the ancient history of the Hebrides. But this is not all. The language, superstitions, proverbs, and modes of thinking, general throughout these isles, evince ancient eminence. Their poetry is lofty and pathetic, replete with noble sentiments, and founded upon the historical associations of an illustrious race.

In consequence of the removal of the seat of government from Dunstaffnage, Inverlochy, and the western coast of Scotland, to the eastern counties of Perth, Fife, and Mid-Lothian, the Hebrides were deprived of the immediate protection of their princes, and left to the capricious and arbitrary despotism of their chiefs. The chiefs carried on perpetual wars against one another, and these too of the most atrocious kind, being frequently founded on family or personal feuds. Neither the sanctity of religion, nor the claims of humanity were respected. The Scottish monarchs, too feeble and too distant to punish the more powerful chiefs, adopted the miserable policy of managing them by setting one of themselves against the other, and of offering the property of the vanquished to his more successful antagonist. To this antagonist another chief was soon opposed, who in his turn, whether victorious or unsuccessful in the first instance, seldom escaped the violent fate of his neighbouring chief. This was the state of the Hebrides from the accession of Alexander III. to the beginning of the eighteenth century, when, in consequence of the union of England and Scotland, and some circumstances favourable to the admission of the young Hebridians of influence into the British army and navy, the blessings of a regular government, and the refinements of civilised society were gradually introduced.

It was not, however, until the year 1748, that the Hebrides could be said to enjoy the complete secu-

ity which results from an equitable and a powerful government. The abolition of the heritable jurisdictions conveyed to their inhabitants the full privileges of British subjects; and if they have not since that period been so well governed as other portions of our empire, the cause is not to be looked for in any neglect or injustice of the legislature, but in circumstances of a local nature, which it will require much time and powerful exertions to remove.

These circumstances are, the disjoined, unconnected, geographical state of the Western Islands, their great distance from cities and markets, the immediate nurses of wealth and of refinement, the difficulty of intercourse on account of the boisterousness of the seas around them, and the storms which so frequently prevail during nine months of the year; but above all, the non-residence of many of the proprietors, who drain the poor Hebrides of their wealth, and, too often residing in other parts of the empire, pay little attention to the improvement of their estates. It may be mentioned, however, that the introduction of steamboats has been of great benefit to the Hebrides, by opening up an easy and regular communication between them and the Lowlands.

The Hebrides are usually classed with reference to their latitude, relatively to Scotland, into two grand divisions, the Southern and Northern Hebrides; and both divisions are distinguished by their size into first, second, and third rate islands.

The first rate isles of the southern division are Islay, Mull, Arran, and Jura; and of the northern, Skye, Lewis, and Harris, and the island of Uist. These contain 2846 square miles, or 1,423,000 Scots acres, and are, to the smaller isles, as 8½ to 1. The promontory of Ardnamurchan, the most westerly point of the British continent, is understood to form the line between the southern and northern Hebrides.

The isles of secondary size are,

South.	*North.*
Bute,	Eigg,
Cumbraes,	Rum,
Eigha and Cara,	Raasay and Islets,
Colonsay,	Rona,
Gismore,	Barray and Islets.
Tyree,	
Coll,	
Ilva and Gometra,	
Terreray,	
Luing,	
Seil, or Saoil.	

The isles of third rate size are,

South.	*North.*
Barba,	Muck, or Monk,
Inga,	Cannay,
Iona,	St Kilda, or Hirt,
Colmkill, or Iona,	Ascrib,
Isdale,	Fladday.
Loch Kenneth,	
Staffa.	

The southern isles of Bute, Arran, Inchmarnoch, and the Cumbraes, constitute the county of Bute. Lewis is a part of Ross-shire; Monk, Rum, and Cannay, of Argyle-shire; and all the other northern isles are attached politically to the county of Inverness.

Altogether they are computed at about 300 in number, eighty-six of which are inhabited. Their population, which, at a rough estimation, may be stated at 100,000, subsist chiefly by fisheries and the rearing of cattle.

The climate of the Hebrides is cold and moist, and, consequently, the soil proportionally unfit for cultivation; a few of the islands, however, are well manured with sea-weed thrown up by the surf, and yield tolerable crops of barley and oats, while others afford pasturage for vast herds of cattle and sheep. The mountainous parts contain lead mines, quarries of marble, freestone, and limestone, with iron, talc, crystals, and valuable pebbles of almost equal brilliancy to the South American topas. Scarcely a tree or shrub is to be met with excepting the wild myrtle, but these, with a great variety of useful plants, spring up and flourish spontaneously. The bays, harbours, and creeks, abound with prodigious quantities of fish of different kinds, and literally swarm with herrings, which with black cattle, sheep, wool, knit hosiery, tartans, and coarse cloth, may be considered the staple commodities of the inhabitants, who use the same language, observe similar customs, and appear in the like costume as the rest of the Highlanders.

The more important of the Hebrides are described in this Encyclopedia under the respective names, to which the reader is referred. See, also, Dr Johnson's Tour to the Hebrides, made with Boswell in 1773; Macdonald's View of the Agriculture of the Hebrides, (Edin. 1811, 8vo), an excellent work from which we have borrowed the most of this article; and Macculloch's Highlands and Western Isles of Scotland.

HEBRIDES, New; a group of islands in the South Pacific ocean, discovered by Quiros in the year 1606. In 1773, captain Cook surveyed this group, and gave to the whole the appellation of *New Hebrides*, from considering them to be the most western islands of the Pacific ocean. They are situated between lon. 166° 41′ and 170° 21′ E., and lat. 14° 29′ and 20° 4′ S., extending 125 leagues, in the direction of N. N. W. ½ W. and S. S. E. ½ E. These islands are fertile, producing figs, oranges, bananas, the bread fruit, and the sugar cane. The only quadrupeds are rats and swine. The inhabitants are of different races, but in general are less pleasing than those of the other islands of the Pacific. Like other inhabitants of the tropical regions, they are active, but impatient of labour. They are of a dark complexion, and have black, short, frizzled hair.

HECATE; the daughter of Tartarus, or, according to some, of Night. Others call Jupiter her father, and Juno, or Ceres, or Asteria, or Phoebe, a daughter of Æolus, her mother. She was the infernal goddess, who presided over magic. Juno having committed the care of her education to the nymphs, she stole the paint-box of the queen of the gods, and gave it to Europa, the daughter of Phœnix. When Juno was about to punish her, she fled to a woman in childbed, and afterwards to a funeral procession. Jupiter caused her to be plunged into the pool of Acheron, by the Cabiri, for the purpose of purification; and from that time she became an infernal goddess. Various accounts are given of her. Hesiod says, her power extended over the earth and sea; she had a place among the stars, and enjoyed peculiar honour with the gods. She gave fame and wealth to her favourites. She made the warrior victorious, sat by the judge to aid him in his decisions, strengthened the *athletæ*, blessed the labours of the fisherman and the herdsman, and promoted the growth and progress of the young. All the magic powers of nature were at her command. She afterwards became the symbol of the moon, and was then the same as Diana; but her authority extended to the infernal world, whence she was called the *Infernal Diana*. As a goddess of the lower regions, she is generally called *Hecate*; in heaven, *Luna*; and on earth, *Artemis* or *Diana*. Magicians and witches

prayed particularly for her aid. Sacrifices used to be offered to her, at places where three ways met, especially dogs. Her mysterious festivals were celebrated annually at Ægina. Her appearance was frightful. She had serpents' feet, and serpents hung hissing around her neck and shoulders. In reference to her threefold relations, she was painted with three faces or three heads; hence called *Triformis*. With the progress of the fine arts, she was represented only with the three faces of the virgin Diana. Various figures of her are found on gems.

HECATOMB (from the Greek ἑκατόν, a hundred, βοῦς, oxen); at first, signifying a sacrifice of a hundred beasts of any sort. Thus Homer speaks of a hecatomb of lambs. Some explain the word as a poetical figure, denoting, in general, a sacrifice of many victims.

HECKEWELDER, JOHN, reverend, was born in Bedford, England, March 12, 1743. His father, a member of the society of United Brethren at Herrnhut, went to England, in the prosecution of plans for communicating the gospel to heathen nations, and, in 1754, removed to Pennsylvania, with his family. At that time, John was in his twelfth year, and had been brought up to the trade of a cooper and joiner. When but nineteen, he accompanied Mr Post in the perilous expedition upon which he was sent, by the government of Pennsylvania, to attempt to conciliate the hostile Indian tribes on the Ohio (in 1762). The interest he took in the aboriginals was great, and this expedition made them the principal object of his thoughts. In the year 1771, he entered among them as a missionary, and for a long series of years, devoted himself entirely to that benevolent, and, at the time, dangerous calling. In common with his brethren, he suffered all the horrors which the revolutionary war entailed upon the Christian Indian flock, and which almost annihilated the fruit of forty years' labours. Until the year 1786, he followed the wrecks of that once flourishing community, and then returned to Bethlehem, in Pennsylvania. He had acquired during this period, a perfect knowledge of the Delaware language, and an extensive acquaintance with Indian affairs generally. On that account, he was several times requested by president Washington to accompany missions to the western Indians, to induce them to adopt pacific measures. In 1797, he went to reside in Ohio, in order to superintend the management of the lands granted by congress on the Muskingum, to the remnants of his former Indian congregation. There he remained until 1810, when he finally took up his residence at Bethlehem. He wrote a Narrative of the Mission of the United Brethren among the Delaware and Mohegan Indians, and contributed largely to the first volume of the Transactions of the Historical and Literary committee of the American Philosophical Society, of which he was a member. Many manuscripts of his are now in the possession of that society, and some of them are soon to be published. He also wrote, several pamphlets and books in the German language. He died in 1823.

HECLA; a volcanic mountain, about 5000 feet high, in the south-western part of Iceland. At the foot of the mountain is the river Wester Rangaa, the bed of which consists of large masses of lava. The nearest inhabited place is the farm Naifurholt. Hecla has three summits, of which the central is the highest. The whole consists of volcanic masses, loose grit and ashes. The crater is not much above 100 feet deep. Since 1004, twenty-four eruptions are said to have taken place, of which the latest were those in 1766, in 1818, and in 1823. A hot vapour issues from various small openings near the top; and the thermometer, which in the air stands below the freezing point, will rise, when set on the ground, to 120, or even 150 degrees. Sir Joseph Banks visited the mountain in 1772, and Sir George Mackenzie in 1810. From the summit there is an extensive view, two-fifths of the island being visible, as the country is level, except where a *jocul*, or glacier, intervenes. See *Iceland*.

HECTOR; the son of Priam and Hecuba, the bravest of the Trojans, whose forces he commanded. His wife was Andromache, the daughter of Aetion, king of Cilicia, by whom he had Astyanax or Scamander, and, according to some, Laodamas and Amphinous. His exploits are celebrated in the Iliad. He encountered the Grecian heroes in battle, and often gained advantages over them. His words and example animated the Trojans with new courage whenever their strength failed: in council, he recommended perseverance, unity, and contempt of danger. By his presence, Troy was invincible. But when he had slain Patroclus, the friend of Achilles, the latter, forgetting his dispute with Agamemnon, resumed his arms to avenge the death of his beloved companion. Pierced by the spear of Achilles, the body of Hector was dragged at the chariot wheels of the conqueror, and afterwards delivered to Priam for a ransom, who gave it a solemn burial. Hector is, indisputably, the finest hero in the Iliad. Inferior to no one in valour, he fell by the hand of Achilles, not from want of courage, but because he had entered the contest wearied with a protracted battle, and faint with wounds, and trusting to the aid of Deiphobus, under whose form Minerva deceived him. In humanity, Hector stood alone. One of the finest episodes in the Iliad, is the relation of his parting from Andromache, where he expresses the best feelings of a prince, a husband, and a father.

HECUBA (Greek Ἑκάβη), a daughter of Dymas, king of Thrace; according to some, of Cisseus, or of the river Sanagrius and Metope. She was the second wife of Priam, king of Troy, to whom she bore Hector and Paris. While pregnant with the latter, she dreamed that she brought a torch into the world, which consumed all Troy. The explanation of this dream, given by the soothsayers, was that her son should occasion the ruin of the kingdom. He was consequently exposed, but miraculously rescued from death. Hecuba afterwards became the mother of Creusa, Laodice, Polixena, Cassandra, Deiphobus, Helenus, Pammon, Polites, Antiphus, Hipponous, Polydorus, Troilus. After the conquest of Troy, the unhappy princess fell to the share of Ulysses, as a slave. Rendered desperate by this misfortune, she exasperated the Greeks by her reproaches, and was at last stoned to death by them. Under the stones, instead of the body of Hecuba, was found that of a dog. The old tragedians represent her on the stage as a tender mother, a noble princess, and a virtuous wife, subjected to the most cruel destiny.

HEDGEHOG (*erinaceus*, Lin.). These quadrupeds are distinguished by having the body covered with spines, instead of hair. The skin of the back is provided with muscles, which enable the animal to roll itself up in the form of a ball. The tail is very short, and the feet furnished with five toes. There appear to be but two species well ascertained; the third, given by Desmarest, being founded on a short description by Seba, which may possibly belong to an animal of another genus. The best known is the common hedgehog (*E. Europæus*), a native of most of the temperate parts of Europe and Asia. This species has a long nose, the nostrils bordered on each side by a loose flap; the ears are short, rounded, naked, and dusky; the upper part of the face, sides, and rump covered with strong, coarse hair, of a yellowish ash colour, the back with sharp

trong spines, of a whitish tint, with a bar of black hrough their middle. They are usually about ten nches long, the tail about one. Their usual resilence is in small thickets, and they feed on fallen ruits, roots, and insects; they are also fond of flesh, ither raw or roasted. Pallas remarks, that they an eat hundreds of cantharides, without suffering rom them, whilst a single one of these acrid insects rill cause the most horrible torments in dogs or cats. t has been asserted, that they mount fruit trees, and ome down with apples, pears, &c., stuck upon their ristles. This is equally false with the imputation hat they suck cows, and injure their udders. Mr White observes, that the manner in which they eat he roots of the plaintain is very curious. With their pper mandible, which is much longer than the ower, they bore under the plant, and gnaw off the oot upwards, leaving the tuft of leaves untouched. The hedgehog defends himself from the attacks of ther animals by rolling himself up, and thus exposng no part of his body that is not furnished with a lefence of spines. It may be rendered domestic to certain degree, and has been employed in Europe o destroy cockroaches, which it pursues with avidity. n the winter, the hedgehog wraps itself in a warm est, composed of moss, dried hay and leaves, and emains torpid till the return of spring. The female roduces four or five young at a birth, which soon ecome covered with prickles. These animals are ometimes used as food, and are said to be very elicate. The skin was formerly used for the purose of napping cloths. The long-eared hedgehog *E. auritus*) is smaller than the common, and is disinguished by the great size of its ears; in its manners, it is said to be similar to that species. The emale produce twice each year, having six or seven oung at a birth. This species inhabits from the orthern part of the Caspian sea to Egypt.

HEDLINGER, John Charles, the most celerated die-cutter of his age, was born at Schweitz, n 1691, and, while a boy, manufactured graving ools for his own use. At his own request, his ather placed him with the director of the mint, Kramer, to learn the art. In 1717, Hedlinger went o Paris, and was intrusted with the execution of ome works, which gained for him the notice of the ing of France. At that time, baron Gortz was in Paris, having been commissioned by Charles XII., mong other things, to select artists who might be revailed upon to go to Sweden. Hedlinger accepted his proposals, and was made director of the oint, upon his own conditions. Charles XII. soon fter fell at Fredericshall, and Hedlinger honoured is memory by the productions of his art. The avour manifested by Charles towards Hedlinger was ontinued by his successor. On this account, the rtist refused the offers of Peter the Great. He nade a journey to Italy in 1726, and met there a listinguished reception. Benedict XIII. conferred pon him the order of Christ, for a medal which the rtist presented to him. After his return, the empress Anna repeated the invitation to come to Petersburg, n so pressing a manner, that Hedlinger at last, with he approbation of his court, went thither in 1735, nd remained two years; after which he returned to Stockholm, loaded with honours. In 1741, he eturned to his native country, and was married. He afterwards visited Sweden frequently, where the cademy, in 1744, elected him one of its members, nd the king honoured him with new dignities; but, n 1745, he left Sweden for ever. On his last voyage rom that country, he lost his property, which was in nother vessel, by shipwreck; the consequences of which would have been very distressing, but for the indness of the king of Sweden. Hedlinger henceforth lived in peaceable employment in Schweitz, where he found consolation, in the society of a daughter, for the loss of a wife, whom he honoured by some very splendid medals. He died in 1771. His works are distinguished by simplicity and correctness of design, and a softness which by no means injures the distinctness of them. They are, for the most part, happily designed. It is generally remarked, in Hedlinger's works, that there are greater endeavours to attain the elegance and precision of the French models, than to produce imitations of the ancients. A splendid work of Chr. de Mechel (*Œuvres du Chevalier Hedlinger, ou Recueil des Médailles de ce celebre Artiste*—Works of the Chevalier Hedlinger, or a Collection of the Medals of this celebrated artist, folio, Basil, 1775), contains elegant copies of his medals, and a well deserved eulogy of this excellent artist.

HEEMSKERK, Martin Van, a Dutch painter, born in 1498, at the village of Heemskerk, from which he derived his name, was the son of a mason, of the name of Van Veen, who at first placed him with a painter at Haerlem, but afterwards took him home, to learn his own trade. The young Martin returned to his father's house unwillingly, and seized the first opportunity of leaving it again. He then went to John Lucas, a painter of some celebrity at Delft; but, finding that his master did nothing for him, he placed himself under the direction of J. Shoreel, a celebrated artist, who had brought from Rome and Venice many valuable studies. Heemskerk now made such rapid progress, that his master, fearing to be eclipsed by him, sent him away. He then executed his picture of St Luke painting the blessed Virgin and the child Jesus, and presented it to the corporation of painters at Haerlem. This picture had great success. Heemskerk afterwards visited Italy, remained there about three years, forming his taste on ancient models, and enjoyed the instructions of the celebrated Michael Angelo, who, at that time, was enriching the capital of the Christian world with the works of his pencil. When he returned to Holland, some of his admirers lamented that they no longer found in his pictures the charms which had delighted them; but connoisseurs knew how to appreciate the progress which he had made in the art of drawing, and his improvement in taste. His apartments were soon filled with scholars, and in a short time he became rich. A great part of the now rare works of this diligent and prolific artist were lost, in 1572, at the capture of Haerlem, where his own house was likewise destroyed. Heemskerk's drawing is firm and accurate, but his outlines are without elegance or grace; his drapery is stiff, and overloaded with folds, and his heads want dignity. He is chiefly indebted for his fame to his knowledge of anatomy, in which he endeavoured to imitate Michael Angelo. He died at Haerlem, 1574.

HEGIRA (*Hedschra*); an Arabic word signifying *flight*. The Mohammedans designate, by this word, the flight of Mohammed, their prophet, from Mecca to Yatreb (Medina), which latter place was, in consequence, called *Medina al Nabi*, that is, the City of the Prophet. From this flight, which they fix on the 16th of July, A. D. 622, they begin their computation of time. The reduction of the years of the Hegira to the corresponding period in the Christian computation, where strict accuracy is not required, may be performed as follows: Since the Mohammedan year is a lunar year of 354 days, 33 Mohammedan years amount to about 32 Christian or tropical years. We must, therefore, subtract from the number of Mohammedan years, one for every 33 years, and add thereto 622 years. Thus, for example, the year 1000 of the Mohammedan reckoning will correspond to the

year 1593 of the Christian; and the year 1830 after Christ is equivalent to the year 1246 of the Hegira. See *Epoch* and *Æra*.

HEIDEGGER, JOHN JAMES; a Swiss adventurer, who took up his residence in England, in 1708, and, obtaining a commission in the guards, was known in fashionable society, by the appellation of the *Swiss count*. An opera, entitled *Thomyris*, which he produced, meeting with success, gained him so much credit, that he was enabled to undertake the management of the opera-house, in London. In his conduct of that establishment, he was very fortunate; added to which, by giving concerts, masquerades, &c., under the patronage of the court, he gained a handsome income, which he expended in keeping a hospitable table and relieving the unfortunate. Heidegger was a great favourite with king George II., who often visited a villa which the Swiss had at Barnes, in Surrey. He was a sort of butt for the wits of his time; and, having a very peculiar visage, he is reported to have made a bet with lord Chesterfield, that he could not produce an uglier man throughout the metropolis, and to have won the wager. He died in 1749, aged ninety.

HEIDELBERG; a city of the grand-duchy of Baden, equally distinguished for its charming situation and its university; at the foot of the beautiful Konigstuhl, and on the left bank of the lovely Neckar, over which is a bridge 700 feet long, and from which a most superb view extends between high mountains, over the valley of the Rhine, to the Vosges; 1¾ league from Manheim; lat. 49° 24′ 43″ N.; lon. 8° 41′ 46″ E.; 10,370 inhabitants. The city has rather an old appearance, but the walks are as various as they are beautiful. The view from the Konigstuhl is one of the most enchanting on the Rhine, embracing many villages and cities, and distant chains of mountains. Here are four Protestant churches, one Catholic, and one synagogue. The university called the *Rupert-Caroline university* was founded in 1386, and is the oldest in Germany, after those of Prague and Vienna. It early adopted the Calvinistic doctrines, and took an important part in the reformation. In the thirty years' war, Heidelberg was taken by the Catholic general Tilly, in 1622; he carried off the library, and the university declined. Heidelberg was ceded to Baden in 1802, and a new era began in her university; the grand-duke Charles Frederic is considered its restorer. It has now an annual income of 66,000 guilders, and is divided into five departments—the theological, with three *professores ordinarii*; the legal, with five; the medical, with four; that of political economy, with five; and the philosophical, with seven. There are, besides, many *professores extraordinarii*, and lecturers. The library of the university contains, at present, 45,000 volumes. The university has two botanical gardens, a clinical institute, a lying-in hospital, &c. &c. In 1829, there were 600 students. Heidelberg also has some trade. There is a gymnasium for Lutherans, Calvinists, and Catholics. We must not forget the famous tun in the cellar of the castle, made of copper, with iron hoops, and containing 600 hogsheads.

HEIDELBERG CATECHISM; a work of much celebrity in the history of the reformation. Frederic III., elector of the Palatinate, belonging to the Calvinistic church, caused it to be written, for the purpose of having a uniform rule of faith. The principal contributors were Zacharias Ursinus, professor of theology at Heidelberg (died 1583), and Caspar Olevianus, minister and public teacher at Heidelberg (died 1587). The Catechism was published in 1563, under the title Catechism, or Short System of Christian Faith, as it is taught in the Churches and Schools of the Palatinate. It has been translated into many languages. See *Creed*.

HEIGHTS, MEASUREMENT OF. A knowledge of the relative heights of different parts of the surface of the earth, is not only an important part of physical geography, but is likewise practically useful in connexion with agriculture and the application of the arts. A knowledge of the elevation of a country enables us to determine its climate, to lay out roads and aqueducts properly, and to guard against inundations. The geologist must, in the chart of the country which he wishes to describe, make divisions, according to the most prominent points; but, in order to do this, he must first have a knowledge of the measurement of altitudes. The military man, unless he is acquainted with the altitude of the points upon the chart before him, cannot form an accurate idea of the ground on which he is to execute his plan of operations. The topographer, who wishes to represent a country in plaster of Paris, clay, &c., must also be acquainted with all its elevations and depressions. It was, therefore, very important to invent a method for quickly and accurately determining heights, by a knowledge of the atmosphere and by the use of instruments, particularly of the barometer and thermometer. As soon as it was discovered, that the air which surrounds our globe was possessed of gravity and elasticity, the operation of which had been perceived on the barometer, it was inferred that its effects on the barometer would be different at different heights in the atmosphere, and that these variations must follow a certain law. Efforts were made to discover this law by experiment. The barometer and thermometer were carried to known heights, observations were there made, and from these observations, rules were derived for finding the elevation of a place above the level of the sea. The famous Pascal, upon the 19th of September, 1648, on the Puy de Dome, near Clermont, made the first experiment, the result of which he had already anticipated. It appeared that the barometer stood at the height of twenty-six French inches 3½ lines, in the garden of the monastery at Clermont, but at only twenty-three inches two lines upon the summit of the above-mentioned mountain. It followed as a necessary consequence, that the height of the column of mercury was diminished in the same proportion as the mass of the atmosphere which supported it in the barometer; and Pascal concluded that, by this process, we could determine whether two places were at the same height, or which of them was the higher, even though they were at a great distance from each other.

Succeeding philosophers followed this idea; but the little success which they met with at first, shows how many difficulties the subject presented, although it now appears so simple. They had the scales, but were unacquainted with the value of the weights. Barometrical admeasurements first acquired precision and accuracy with Deluc (1754). This philosopher distinguished the effects produced by heat, on the air and on mercury, from those which depend upon their weight; and the improvements which he made form an epoch in the history of the barometer. The history has been written by Pictet, who himself played an honourable part in it. Biot also published inquiries made for the purpose of perfecting the theory of barometrical measurements, and some tables to facilitate the calculations. Ramond, in 1809, devoted himself to this subject. In his works, which appeared at Clermont (1811), he has determined the conditions of a good observation; he has arranged and explained the circumstances which are peculiar to barometrical observations, in order that the effect of the state of the atmosphere on the correctness of the calculations may be known, that the amount of error may be estimated, and may be made use of for the advancement of meteorology.

Since Deluc's discovery, the remarkable formula proposed by the author of the *Mécanique céleste* (vol. iv. p. 289) is the most distinguished discovery on this subject. (See Puissant's *Géodésie*, vol. ii. and Biot's *Astron.*, vol. iii.) He reduced to a certain point, in a more natural and simple manner, all the corrections which are to be made, on account of the influence of temperature, of moisture and gravity on the mercury and the air. He rested his theory on the most accurate data; but the coefficient which he had assumed, in order to represent the relation between the weight of the atmosphere and that of the mercury, appeared to have too little foundation: the formula was to be proved; the length of the columns to be substituted for their weight; many causes of errors remained to be ascertained; the coefficient was to be improved, or, rather, a new one was to be determined. Ramond has done all this. By a comparison between barometrical observations, and actual measurements of the heights where the observations were taken, he has determined the coefficient, as it is contained in Laplace's last formula. Ramond and many other observers have shown, by experiment, that this formula is not only adapted to small as well as great heights, but is also useful in taking measurements under the surface of the earth.

Barometrical observations may attain great accuracy, when they are made with good instruments, by good observers, and under favourable circumstances. In order to ascertain the relative height of two points, two barometers and four thermometers are requisite; two of the thermometers being attached to the barometers, and two of them being free. These instruments must be as simple as is consistent with convenience and accuracy; and they must agree perfectly. The observers must be well acquainted with their instruments, in order to be able to use them; and it is particularly necessary that they should know on what the observations depend. If two or more observers undertake to ascertain the elevation of a place or country by barometrical measurement, they must attend especially to the following particulars:—*a*, that the instruments hang perpendicularly, protected from the sun, and that the free thermometers be raised, at least, nine feet from the ground, and from any objects which might have an influence on their temperature; *b*, the barometers should be accurately regulated, and the degree at which the mercury stands in the barometer and thermometer should be carefully noted; and, *c*, after the instruments are made to correspond, the observations should be made contemporaneously: finally, the observer must be particularly careful to note the state of the atmosphere. Observations should not be taken in stormy weather, or when the quicksilver in the barometer is liable to sudden variations; moderate weather, when the atmosphere is either calm, being clear or cloudy, or when there is a light wind, is the most suitable time for making observations. The instruments should not be at too great a distance from each other. The greatest intervening space should not exceed ninety miles. If these general rules for measuring heights by the barometer are attended to, it is far preferable to every other instrument, to ascertain, expeditiously, the height of a mountain, the descent of a river, &c., for a certain space; the relative height of different points, the depth of a cavity, and the thickness of the strata of a mountain. We cannot, indeed, ascertain the fall of a river to an inch by barometrical measurement; but, by careful observations, we may come very near the truth.

Tables founded on Laplace's formula, give great facility in calculating these observations. Among many others, *Tables hypsométriques* (Paris, 1809) are particularly good, on account of their correctness and adaptation for use. Also the tables by Gauss, published, 1818, in Bode's *Astronom. Jahrbuch*, are to be commended for their brevity, though one must also have at hand the usual logarithmic tables. Biot's *Tables barométriques* (Paris, 1811) are not less excellent. The labours of the distinguished natural philosopher and mineralogist D'Aubuisson (1809), the progress and result of which are detailed in a memoir read before the mathematico-physical class of the institute, at Paris, March 26 and April 9, 1810, are particularly worthy of notice.

HEILIGEN (from *heilig*, German for *holy*); a word in many geographical names; as *Heiligenstadt*.

HEIM; the root of many German words, and a syllable appearing at the end of many geographical names, signifying *home* (with which it has a common origin) or *dwelling*; as *Manheim*. The Swedish *hem* signifies the same thing; also the English *ham*, in Durham, &c.; and the French *hameau* is derived from it.

HEIM, Peter Petersen; a man of obscure origin, who, by his bravery, rose to the dignity of high admiral of Holland. He was born in 1577, rose gradually to the rank of vice-admiral of the East Indian fleet, and, three years afterwards, received the chief command. He attacked the Portuguese, in 1626, on the coast of Brasil, took several ships, and carried home a rich booty. The same year, he captured the Spanish plate fleet, and obtained an immense booty. In 1629, he was appointed high admiral in reward for his services; and was soon after killed in an engagement with a fleet from Dunkirk, of which he had already captured three ships.

HEINECCIUS, John Gottlieb; a German author, who wrote on logic, jurisprudence, and ethics. He was born in 1680, at Eisenberg, and studied at Halle, where he afterwards obtained a professor's chair in the sciences of philosophy and law. In 1724, he quitted Halle for Franeker, and remained there till 1727, when he accepted an invitation, given him by the king of Prussia, to settle at Frankfort on the Oder. Here he resided upwards of six years, when he returned to Halle. His works were collected and published at Geneva, in eight quarto volumes, three years after his decease, which took place in 1741. The principal are, *Syntagma Antiquitatum Romanorum Jurisprudentiam illustrantium; Elementa Juris Civilis; Elementa Philosophiæ Rationalis et Moralis; Historia Juris Civilis; Elementa Juris Naturæ et Gentium* (translated into English by Turnbull); *Fundamenta Styli cultioris;* and several academic dissertations.

HEINECKEN, Christian Henry, a child greatly celebrated for the premature development of his talents, was born at Lubeck, Feb. 6, 1721. He could talk at ten months old, and had scarcely completed his first year, when he knew and recited the principal facts in the five books of Moses, and, at fourteen months, knew the history, both of the Old and New Testament. At two years and a half, he could answer questions in geography, and in history, ancient and modern; soon after, he learned Latin and French. In his fourth year, he had learned the doctrines of divinity, with their proofs from the Bible; modern history; ecclesiastical history; the institutes; 200 hymns, with their tunes; and 1500 verses and sentences from the ancient Latin classics. His stupendous memory retained every word repeated to him; and, at the court of Denmark, he delivered twelve speeches without once faltering, and underwent public examinations on a variety of subjects. He spoke German, Latin, French, and Low Dutch. He was exceedingly good natured and well behaved, but of a most tender and delicate constitution. He never ate solid food, but chiefly subsisted on his

nurse's milk, not being weaned until within a few months of his death, which took place at the age of four years and four months, on the 27th June, 1727. A dissertation on this extraordinary child was published by M. Martini, at Lubeck, in 1730, and addressed to M. Schonich, the child's tutor, who had published an account of him in the fifth volume of the Republic of Letters, which statement was republished in the German language in 1778 or 1779.

HEINITZ, ANTHONY FREDERIC, baron of; born in 1724; died 1802. In 1763, he laid the plan of the famous mining academy in Freyberg, the beneficial effects of which have been extensively felt. In 1776—77, he travelled in France and England, and in consequence of his journey, wrote his *Essai d' Economie politique*. Frederic II. of Prussia appointed him minister of state and chief of the mining department.

HEINSIUS, DANIEL; a celebrated Dutch philologist, born at Ghent, in 1580. At fourteen, he was sent to the university of Franeker to study the civil law; but he applied himself chiefly to Greek literature. Removing to Leyden, he continued his studies under Joseph Scaliger, who paid great attention to so promising a pupil. He read public lectures on Greek and Latin authors at twenty; and he was afterwards chosen professor of history in the university of Leyden. He was so much attached to his bottle, as occasionally to incapacitate himself for his professorial duties. He died at Leyden, January 15, 1655. His Latin poems consist of elegies, satires, and two tragedies, besides other pieces. He also wrote Greek poems, which were much esteemed, and verses in the Dutch language.

HEINSIUS, NICHOLAS, son of the preceding, cultivated the same branches of learning with his father with success. He was born at Leyden, in 1620, and carefully educated under the paternal roof. He travelled in England, through the Low Countries, in France and Italy. His father wishing for his return, he went to Leyden; but remained only a few months, as Christina of Sweden invited him to her court. He established himself at Stockholm in 1650, and was appointed resident from the states of Holland, in October, 1654. The death of his father determined him to return to his native country. In 1658, he retired to the Hague. He gave up all his leisure to literature; and it was against his inclination that he went on a public mission to Muscovy, in 1667. He returned home, with his health much debilitated, in 1671. He died at the Hague, October 7, 1681. Much of his time was devoted to literature, notwithstanding his public employments; and he gave to the world several critical editions of Latin authors.

HEINSIUS; grand pensionary of Holland, the favourite and confidant of prince William of Orange, who, in 1688, ascended the English throne as William III. William sent him to Paris, after the peace of Nimeguen, in order to enforce there his claims on the princedom of Orange. Heinsius spoke so boldly for his prince and the Protestants, that Louvois threatened him with the Bastile. From that time, he was the declared enemy of France, and was particularly active during the war of the Spanish succession, to humble Louis XIV. But his opposition to the peace brought the burden of a great debt upon the republic; and he lost his office, after having held it for thirty years. He died at the Hague, at the age of eighty-seven years.

HEIR. See *Descent*.

HEIR APPARENT is a person so called in the lifetime of his ancestor, at whose death he is heir at law.

HEIR PRESUMPTIVE is one who, if the ancestor should die immediately, would, under existing circumstances, be his heir; but whose right of inheritance may be defeated by some nearer heir being born.

HELDENBUCH (German; *Book of Heroes*); a celebrated collection of old German poems, drawn from national traditions of events which happened in the time of Attila and the irruption of the German nations into the Roman empire. It contains the exploits and adventures of the emperor Otnit and the dwarf Elberich, of Hugdietrich, Wolfdietrich, king Giebich of Worms, Dietrich of Berne, of king Laurin, the history of the famous garden of roses at Worms, of Hornensiegfried, of the court of Attila, &c. These poems excite the imagination by their lively tales of war and of love. They were written at different times, by various poets. The oldest are of the Suabian period, and, in their form and style, resemble the *Nibelungenlied*. Among the authors are Henry of Ofterdingen, and Wolfram of Eschenbach. A later text was given in 1472, by Caspar von Rom, and some parts have become popular stories in prose. The oldest impressions give the revised text. The first edition appeared about 1490; the second, at Augsburg, 1491; the third, at Hagenau, 1509; all folio. The beginning of a modernised edition by Von der Hagen appeared at Berlin, 1811, and the Heldenbuch in the Original Tongue—*Das Heldenbuch in der Ursprache*, &c. (Berlin, 1820—24, 2 vols., 8vo) —by the same and A. Primisser.

HELENA; in fabulous history, the most beautiful woman of her age, sprung from one of the eggs which Leda, the wife of king Tyndarus, brought forth after her amour with Jupiter, metamorphosed into a swan. (See *Leda*.) According to some authors, Helen was daughter of Nemesis by Jupiter, and Leda was only her nurse; and, to reconcile this variety of opinions, some imagine that Nemesis and Leda are the same persons. Her beauty was so universally admired, even in her infancy, that Theseus, with his friend Pirithous, carried her away before she had attained her tenth year, and concealed her at Aphidnæ, under the care of his mother Æthra. Her brothers, Castor and Pollux, recovered her by force of arms, and she returned safe and unpolluted to Sparta, her native country. There existed, however, a tradition recorded by Pausanias, that Helen was of nubile years when carried away by Theseus, and that she had a daughter by her ravisher, who was intrusted to the care of Clytemnestra. Her hand was afterwards eagerly solicited by the young princes of Greece, including Ulysses, Diomed, Ajax, son of Oileus, Ajax and Teucer, sons of Telamon, Patroclus, son of Menœtius, Menelaus, son of Atreus, Thoas, Idomeneus, and Merion. At the proposal of Ulysses, Tyndarus bound all the suitors by solemn oath, to approve of the choice which Helen should make of one among them, and engage to unite together to defend her person and character, if ever any attempts were made to ravish her from the arms of her husband. Helen chose Menelaus. Hermione was the early fruit of this union, which continued for three years with mutual happiness. After this, Paris, son of Priam king of Troy, came to Lacedæmon on pretence of sacrificing to Apollo. He was kindly received by Menelaus, and, in his absence in Crete, he corrupted the fidelity of Helen, and persuaded her to follow him to Troy. At his return, Menelaus assembled the Grecian princes, and reminded them of their solemn promises. They resolved to make war against the Trojans; but they previously sent ambassadors to Priam, to demand the restitution of Helen. The influence of Paris at his father's court prevented the restoration. Soon after, the combined forces assembled, and sailed for the coast of Asia. When Paris was killed, in the ninth year of the war, she voluntarily married Deiphobus,

ne of Priam's sons; and, when Troy was taken, she nade no scruple to betray him, and to introduce the Greeks into his chamber, to ingratiate herself with Menelaus. She returned to Sparta, and Menelaus eceived her again. Some writers, however, say hat she obtained even her life with difficulty from ier husband. After she had lived for some years at iparta, Menelaus died, and she was driven from 'eloponnesus by Megapenthes and Nicostratus, the legitimate sons of her husband; she retired to Rhodes, where, at that time, Polyxo, a native of Argos, reigned over the country. Polyxo, whose husband, Tlepolemus, had been killed in the Trojan war, meditated revenge on Helen. While Helen, one day, retired to bathe in the river, Polyxo disguised her attendants in the habit of furies, and sent them with orders to murder her enemy. Helen was tied to a tree and strangled, and her misfortunes were afterwards remembered, and the crimes of Polyxo expiated by the temple which the Rhodians raised to Helen *Dendritis*, or *tied to a tree*. There is a tradition mentioned by Herodotus, which says that Paris was driven, as he returned from Sparta, upon the coast of Egypt, where Proteus, king of the country, expelled him from his dominions for his ingratitude to Menelaus, and confined Helen. Priam therefore informed the Grecian ambassadors, that neither Helen nor her possessions were in Troy, but in the hands of the king of Egypt. In spite of this assertion, the Greeks besieged the town, and took it after ten years' siege; and Menelaus, visiting Egypt as he returned home, recovered Helen at the court of Proteus, and was convinced that the Trojan war had been undertaken upon unjust grounds. Helen was honoured, after death, as a goddess, and the Spartans built her a temple at Therapne, which had the power of giving beauty to all the deformed women that entered it. Helen, according to some, was carried into the island of Leuce, after death, where she married Achilles, who had been once one of her warmest admirers.

HELENA, St.; an island in the Atlantic ocean, standing entirely detached from any group, and about 200 miles from the nearest land, on the coast of Southern Africa; lon. 15° 55′ W.; lat. 5° 49′ S. It was discovered by the Portuguese, in 1501. It was afterwards possessed by the Dutch, and finally came into the possession of the English about the year 1651, in whose possession it has, with a short interval, ever since remained. It was granted to the East India company by Charles II. St Helena is 10½ miles long by 6¾ broad, and about 28 miles in circumference. It presents to the sea, throughout its whole circuit, nothing but an immense wall of perpendicular rock, from 600 to 1200 feet high, like a castle in the midst of the ocean. On entering, however, and ascending by one of the few openings which nature has left, verdant valleys are found interspersed with the dreary rocks. There are only four openings in the great wall of rock which surrounds St Helena, by which it can be approached with any facility. These are all strongly fortified. The climate of St Helena is not liable to the extremes of heat or cold; but it is moist, and liable to strong gusts of wind. There is only one place in the island which can be called a town, situated in a narrow valley, between lofty mountains, called James's Valley. The principal plain in the island, called *Longwood*, situated in the eastern part, has become celebrated by the residence of Napoleon. The illustrious captive arrived at St Helena in November, 1815, and died there May 5, 1821. His tomb is in a secluded recess, near Longwood. It is surrounded by a fence, enclosing a piece of ground containing weeping willows, and by an interior iron fence. The tombstone is about nine inches high, without an inscription. The body is deposited in a mahogany coffin, which is placed within three other cases: on the external one is the inscription, *General of the French*. By his side lies the sword which he wore at Austerlitz.

HELENUS; son of Priam, and twin-brother of Cassandra, endowed with the gift of prophecy. After the death of Paris, he wished to marry Helen; and, irritated by the failure of his suit, he betrayed Troy into the hands of its enemy. The invention of the wooden horse is ascribed to him. After the destruction of Troy, he fell into the hands of Pyrrhus, son of Achilles, who gave him Andromache, his brother Hector's widow, in marriage. He was the only one of Priam's sons who survived the ruin of his country. After the death of Pyrrhus, he reigned over a part of Epirus. He received Æneas on his voyage to Italy.

HELIACAL, as applied to the rising of a star, planet, &c., denotes its emerging out of the sun's rays, in which it was before hid. When applied to the setting of a star, it denotes the entering or immerging into the sun's rays, and thus becoming lost in the lustre of his beams. A star rises heliacally when, after it has been in conjunction with the sun, and on that account invisible, it gets at such a distance from the sun as to be seen in the morning before the rising of that luminary.

HELIADES;

1. The seven sons of Helios (Sol), the god of the sun, who were born when the warm beams of Helios dried up all the moisture of the island of Rhodes. Their only sister, Electrione, died a virgin, and received divine honours from the Rhodians. The brothers distinguished themselves by their knowledge of the sciences, particularly of astronomy; they improved ship-building, and divided the day into hours. Thenages excelled all his brothers in intellect; on which account they put him to death. When the act became known, they all fled from the island, except two, whose hands were not stained with the blood of Thenages.

2. The daughters of Helios and the nymph Merope or Clymene were also called *Heliades*. See *Phaëton*.

HELIANTHUS. See *Sun-flower*.

HELICON (now *Sagara*); a celebrated mountain in the western part of Bœotia, where the Greeks placed the residence of the muses, who, together with Apollo, had temples and statues here. In this mountain, also, were the fountains of the muses Aganippe and Hippocrene, and the fountain in which the unhappy Narcissus saw his own image. The region around was extremely fertile, and so healthy that even the serpents were fabled to be harmless. See *Parnassus*.

HELIGOLAND, or HEILGOLAND (anciently *Hertha*); an island in the North sea, about nine miles in circumference, on the coast of Holstein, about twenty-eight miles from the mouths of the Weser, Elbe, and Eyder; formerly belonging to Denmark, now to Great Britain. It is divided into *Klif* and *Duhnen*, or high and low land. It produces barley and oats, but not enough for the consumption of the inhabitants, who chiefly subsist by fishing. On the highest part of the west Klif, in lon. 7° 53′ 13″ E., and lat. 54° 11′ 34″ N., is a light-house, which is of great use in guiding ships amidst the surrounding rocks and shoals, and also as a mark for directing vessels to the mouths of the nearest rivers. Population, 2200, subsisting chiefly by fishing and acting as pilots. It was taken, in 1807, by admiral Russell, from the Danes, and since the peace of Kiel, has belonged to Britain, which exacts no taxes from

it, and takes no concern in its internal administration. The British ceased to occupy it as a military post in 1821. The inhabitants are of Frisian descent, and the old Frisian dialect is still spoken here. During the last general war in Europe, great magasines of colonial goods were formed on the island, in order to be smuggled to the continent, as occasions offered; and it is so favourably situated to be the centre of a contraband trade, that it did much to defeat the exclusive system in the north of Europe.

HELIOCENTRIC PLACE OF A PLANET is that place in the ecliptic in which the planet would appear if viewed from the centre of the sun; and consequently the heliocentric place coincides with the longitude of a planet, as viewed from the same centre.

HELIODORUS; one of the best Greek amatory writers. He was a native of Emesa, in Syria, and lived near the end of the fourth century. He was a believer in the Christian religion, and bishop of Tricea (Tricala), in Thessaly; but towards the close of his life, he was deposed. His youthful work, *Æthiopica* (i. e. Æthiopic History), or the Loves of Theagenes and Charicles, in poetical prose, and an almost epic tone, is distinguished by its strict morality from the other Greek romances, and interests the reader by the wonderful adventures it recounts. The best editions are those of Bourdelot (Paris, 1619; Leipsic, 1772), of Coray (Paris, 1804, 2 vols.; Leipsic, 1805, 2 vols.).

HELIOGABALUS, M. AURELIUS ANTONINUS; a Roman emperor, son of Varius Marcellus. He was called *Heliogabalus*, because he had been priest of that divinity in Phœnicia. After the death of Macrinus, he was invested with the imperial purple, and the senate, however unwilling to submit to a youth only fourteen years of age, approved of his election, and bestowed upon him the title of *Augustus*. Heliogabalus made his grand-mother Mœsa, and his mother Soæmias, his colleagues on the throne, and, to bestow more dignity upon the sex, he chose a senate of women, over which his mother presided, and prescribed all the modes and fashions which prevailed in the empire. Rome now displayed a scene of cruelty and debauchery; the imperial palace was full of prostitution, and the most infamous of the populace became the favourites of the prince. He raised his horse to the honours of the consulship, and obliged his subjects to pay adoration to a god called *Heliogabalus*. This was no other than a large black stone, whose figure resembled that of a cone. To this ridiculous deity temples were raised at Rome, and the altars of the gods plundered to deck those of the new divinity. In the midst of his extravagances, Heliogabalus married four wives. His licentiousness soon displeased the populace, and Heliogabalus, unable to appease the seditions of the soldiers, whom his rapacity and debaucheries had irritated, hid himself in the filth and excrements of the camp, where he was found in the arms of his mother. His head was severed from his body, A.D. 222, in the eighteenth year of his age, after a reign of three years, nine months, and four days. He was succeeded by Alexander Severus. Heliogabalus burdened his subjects with the most oppressive taxes, his halls were covered with carpets of gold and silver tissue, and his mats were made with the down of hares, and with the soft feathers which were found under the wings of partridges. He was fond of covering his shoes with precious stones, to draw the admiration of the people as he walked along the streets, and he was the first Roman who ever wore a dress of silk. He often invited the most common of the people to share his banquets, and made them sit down on large bellows full of wind, which, suddenly emptying themselves, threw the guests on the ground, and left them a prey to wild beasts. He often tied some of his favourites on a large wheel, and was particularly delighted to see them whirled round like Ixions, and sometimes suspended in the air, or sunk beneath the water.

HELIOMETER (called, also, *Astrometer*); an instrument for measuring small distances on the sky, particularly the apparent diameters of the sun and of the moon, more conveniently than can be done with the micrometer. There are different ways of constructing it. The heliometer of Bouguer is an astronomical telescope, provided with two object-glasses, one of which is movable, and which form two distinct images of the same object, visible through the same eye-glass. If, in contemplating a celestial body, the object-glasses are placed so as to bring the images to touch each other, the distance of the centres of the glasses gives the diameter of the image. In this manner, the instrument gives, for instance, the difference of the diameter of the sun in the perigee and apogee. See Lalande's *Astronomie*, second edition, § 2433.

HELIOPOLIS, in Cœlosyria. See *Balbec*.

HELIOPOLIS (*city of the sun*), which, in the Egyptian language, was called the *city of On*, was situated a little to the north of Memphis, and was one of the most extensive cities of Egypt, during the reign of the Pharaohs, and so adorned by monuments as to be esteemed among the first sacred cities of the kingdom. The temple dedicated to Re was a magnificent building, having in front an avenue of sphinxes, celebrated in history, and adorned by several obelisks, raised by order of Sethosis Rameses, 1900 years B. C. By means of lakes and canals, the town, though built upon an artificial eminence, communicated with the Nile, and, during the flourishing ages of the Egyptian monarchy, the priests and scholars acquired and taught the elements of learning within the precincts of its temples. At the time of Strabo, who visited this town soon after the death of our Saviour, the apartments were still shown, in which, four centuries before, Eudoxus and Plato had laboured to learn the philosophy of Egypt. Here Joseph and Mary are said to have rested with our Saviour. It is now called *Metaree*. Near the village stands the pillar of On, a famous obelisk, supposed to be the oldest monument of the kind existing. Its height is 67½ feet, and its breadth at the base six feet. It is one entire mass of reddish granite. Hieroglyphical characters are rudely sculptured upon it. A bloody battle was fought here, March 20, 1800, between the French and the Turks.

HELIOS; the god of the sun (in Latin, *Sol*), in the Greek mythology; son of Hyperion and Thea, and brother of Eos (Aurora, the dawn) and Selene (Luna, the moon). He dwells with Eos in the ocean behind Colchis. From the portals of the morning, he rides through the air, in an oblique curve, to the gates of evening; and, after having cooled his horses in the ocean, he drives his chariot into a self-moving golden vessel, made by Vulcan, which, with wonderful rapidity bears him along the northern shore of the ocean back to Colchis, where he bathes his horses in the lake of the sun, and rests during the night, till the dawn of the morning. Later authors assign him a palace in the west, where he refreshes himself and his horses with ambrosial food. Respecting the history of Helios, the poets relate his contest with Neptune for the isthmus of Corinth, his revealing the secret amours of Mars and Venus, and his disclosure to Ceres of the ravisher of her daughter. In Sicily, he had a herd of cattle dedicated to him, with the sight of which he was delighted, as he rode through the sky. His vengeance fell heavily upon the companions of Ulysses, who slaughtered some of

bem. He threatened to descend into Orcus, and to give light to the dead, if Jupiter did not punish he criminals. The thunder dashed their vessel o pieces, and sunk them in the waves. As he was lescended from the race of the Titans, he is often alled *Titan*. His worship was very extensively liffused, and he had many temples and statues; for nstance, in Corinth, Argos, Troezene, Elis, but parcularly in Rhodes, where a team of four horses was nnually sacrificed to him, by being precipitated into he sea. White lambs were also sacrificed to him. Horses, wolves, cocks, and eagles were sacred to him. He is represented as a youth, with most of his ody covered with clothing, and having his head urrounded with rays. Sometimes he rides upon chariot drawn by four horses. See *Apollo*.

HELIOSCOPE is a telescope, behind which the mage of the sun is received upon a plain surface. An astronomical telescope is drawn out a little urther than is necessary for common use, and irected towards the sun. The image which is ormed, is received in a dark place. For this purose, a dark chamber is employed, or the telescope s placed in a dark funnel-shaped enclosure, the ottom of which is covered with oiled paper, or losed with ground glass, on which the sun's image s formed. Upon this paper or glass a circle is escribed equal to the image, and divided, by five oncentric circles, into twelve digits. With this nstrument the spots on the sun, eclipses, &c., may e observed without injuring the eyes. For greater xactness, however, it is better to observe the sun hrough a telescope, the glasses of which are smoked r coloured. Astronomical telescopes are commonly rovided with coloured plane glasses, which may be crewed on when the sun is to be observed.

HELIOTROPE. See *Quartz*.

HELL, Maximilian, a learned astronomer, was orn in 1720, at Chemnitz, in Hungary, and first ducated at Neusohl. Having, in 1738, entered the ociety of the Jesuits, he was sent to the college at ienna, where he exhibited a genius for mechanics. le then applied to mathematics with great diligence, nd became assistant at the observatory belonging o his order. In 1750, he published *Adjumentum Memoriæ Manuale Chronologico-Genealogico-Historicum*, which has been translated into various languages. In 1752, he became professor of mathematics at Clausenburg. From 1757 to 1786, he ublished, annually, the Ephemerides, which is much steemed by astronomers. He was soon after recalled to Vienna, to be astronomer and director at the ew observatory. In 1769, at the desire of the king f Denmark, he went to observe the transit of Venus, n an island in the Frozen ocean. He died in 1792. Hell is to be ranked among those who have rendered ssential services to astronomy.

HELLAS, HELLENES, HELLENISM (Ἑλλας, Ἑλληνες). Hellas, in a narrower sense, was Greece roper, with its eight states (the modern Livadia, . v.); in a more extensive sense, it signified all reece, with the islands and colonies.—*Hellenes* is he general name of the Grecians. (See *Greece*.) They are said to have derived their name from *Helen*, who contributed to the civilisation of the Pelasgi, the earliest inhabitants of Greece. The erm *Hellenes* is therefore used sometimes in opposition to *Pelasgi*, and then we understand by it hat cultivated race of men, who inhabited Greece, nd have become immortal in history. The first lawn of civilisation was spread from Thessaly among he Pelasgian savages, by the descendants of Prometheus. It is not therefore strange, that with the ame of *Hellenes* were associated the ideas of greater efinement and superior genius. The question, How did the savage tribes of Greece acquire the improved character of Hellenes? may be answered by a consideration of the following causes: 1. The influence of a favourable climate. In a land abounding in natural beauties, in a climate which is neither relaxing by heat, nor contracting by cold, the mental faculties are naturally developed with greater energy. 2. A finer original organisation of the Greek race. 3. From these causes arose the natural activity, vivacity and inquisitiveness of the nation, a lively imagination, ingenuous feeling, a fine sense of the beautiful and the true in science and in the arts. Curiosity became the mother of knowledge. Opportunities for satisfying it were afforded by the conflux of so many tribes, general emigrations, voyages, and early intercourse with civilised nations. 4. The political freedom, and the peculiar constitution of the nation, which was divided into many small republics. This circumstance facilitated the development of every talent according to its natural bent. 5. The situation of the country, and the frequent intercourse of the people with other nations. 6. The comforts and pleasures of life, and the spirit of social intercourse which existed among them. By the exemption of the people from heavy taxes and other public burdens of despotic governments, the number of persons enjoying competency was increased. 7. Their education, according to which man was not made a mere machine of the state and of prejudices, and his faculties were allowed to unfold freely and harmoniously. 8. Freedom of thought. As there was no separate class of priests, the intellect and imagination expatiated freely on the subject of religion. Their religion gave them a form of worship, but imposed no constraint. It was less mystical in its tendency than plastic, and was formed and refined by poetry. Hence their fanciful and bright conceptions, and traditions of their gods, from which the plastic art created its divine forms and beautiful ideals. Even what the Greeks borrowed from foreign nations, became Grecian in their hands. From the shapeless *fetiches*, they first made images in the human form, and obtained from their national traditions a race of gods in the shape of men. 9. By this their attention was directed to what constitutes the true dignity of man. Frequent political and social intercourse cultivated a practical knowledge of man, which formed and strengthened in the Greeks a spirit of observation, for which their poets, orators, and philosophers are so highly distinguished. The forms of their political constitutions, which caused every thing to be transacted in public, afforded them a full field for exercise. How otherwise could be explained, at so early an age, those striking representations of character, that rich knowledge of mankind, that power of creating and developing ideas, that expressive and pathetic language? This is therefore a main point in Greek civilisation and refinement, which explains some of the most beautiful traits of Grecian genius. 10. Some great geniuses, who fortunately sprang up in this nation. Where free observation is united with natural feelings and a lively imagination, there are the elements of poetry and art, which, however, can reach perfection only by a particular favour of nature. Great minds appeared of a truly Grecian character, and the effect they have produced, by their creations, is well known. It was under so rare a union of favourable circumstances, that the genius which characterised the inhabitants of ancient Greece, as Hellenes, was developed; and it is not strange that the word *Hellenic* or *Grecian* immediately awakens in us an idea of something beautiful in literature or art.

HELLE; in heathen mythology, a daughter of Athamas and Nephele, sister to Phryxus. She fled

from her father's house with her brother, to avoid the cruel oppression of her mother-in-law, Ino. According to some accounts, she was carried through the air on a golden ram, which her mother had received from Neptune, and, in her passage, she became giddy, and fell from her seat into that part of the sea, which, from her, received the name of *Hellespont*. Others say that she was carried on a cloud, or rather upon a ship, from which she fell into the sea, and was drowned. Phryxus, after he had given his sister a burial on the neighbouring coasts, pursued his journey, and arrived safe in Colchis. See *Phryxus*.

HELLEBORE (*helleborus*); a genus of plants allied to and resembling the ranunculus, but the large green, whitish, or purplish flowers of the different species give them a different aspect. Ten species are known, all natives of the northern parts of the eastern continent. These plants have a bitter and somewhat acrid taste, and a nauseous, disagreeable odour. The root of one of them has been employed as a purgative from remote antiquity, and was a very celebrated remedy with the Greeks and Romans, particularly in mania. So far was this superstition carried, that the most celebrated philosophers drank hellebore to keep their brain clear before undertaking intellectual labour; and it was pretended that certain precautions were necessary in collecting this plant. It is still sometimes employed as a purgative, but is apt to act violently if an overdose be taken.

HELLENES. See *Hellas*.

HELLENISTS; scholars learned in Grecian antiquities, particularly in the Greek language and literature.

HELLENISTS, Egyptian; the Jewish colonists, who settled in Egypt, after the destruction of the kingdom of Judah, about 600 B. C. Their number was increased by the many colonies of Jews planted by Alexander the Great, 336 B. C., and later by Ptolemy Lagus. Under the reign of the emperor Augustus, they amounted to nearly 1,000,000. The mixture of the Jewish and Egyptian national characters, and the influence of the Greek language and philosophy, which were adopted by these Jews, laid the foundation of a new epoch of Greco-Jewish literature, which, from its prevailing character, received the name of the *Hellenistic*. The systems of Pythagoras and Plato were strangely combined with those Oriental phantasies, which had been reduced to a system in Egypt, and with which the mystical doctrines of the Gnostics were imbued. The most noted of the Jewish Hellenistic philosophers was Philo of Alexandria, and the chief of the learned labours of the Alexandrian Jews was the Greek translation of the Old Testament. See *Septuagint*.

HELLESPONT; the straits between Europe and Asia, now called the *Dardanelles*. (For the mythological origin of the name, see *Helle*.) Its shores were lined with pleasant hills, towns, and villages. Here were, in ancient times, Lampsacus, with its beautiful vineyards; the mouth of the Ægos Potamos, immortalized by the victory of Lysander over the Athenian fleet; the cities of Sestos in Europe, and Abydos in Asia, rendered famous through the poem of Musæus on the loves of Hero and Leander. The strait is here but seven *stadia* wide, or about seven-eighths of a mile. In this place Xerxes passed from Asia to Europe over a double bridge. Lord Byron swam across the Hellespont, in 1810, in one hour and five minutes, in company with lieutenant Ekenhead. The rapidity of the current is such that no boat can row directly across, and lord Byron calculated that the whole distance, from his place of starting to his landing, on the Asiatic side, was more than four miles, although the strait is but a mile and a half wide at the broadest part, and half a mile at the narrowest. Cocks are heard crowing from the opposite shores. The length of the strait is about thirty-three miles. The passage is defended by two opposite forts, called the Castles of Asia.

HELM; a long and flat piece of timber, or an assemblage of several pieces, suspended down the hind part of a ship's stern-post, where it turns upon a kind of hinges to the right or left, serving to direct the course of a vessel, as the tail of a fish guides the body. The helm is usually composed of three parts, viz. the rudder, the tiller, and the wheel, except in small vessels, where the wheel is unnecessary. The rudder becomes gradually broader in proportion to its distance from the top, or its depth under water. The back or inner part of it, which joins the stern-post, is diminished into the form of a wedge throughout its whole length, so that it may be more easily turned from one side to the other, when it makes an obtuse angle with the keel. The length and thickness of the rudder is nearly equal to that of the stern-post. The tiller is a long bar of timber, fixed horizontally in the upper end of the rudder, within the vessel. The movements of the tiller to the right and left accordingly direct the efforts of the rudder to the government of the ship's course, as she advances, which is called *steering*. The operations of the tiller are guided and assisted by a sort of tackle, communicating with the ship's side, called the *tiller-rope*, which is usually composed of untarred rope-yarns, for the purpose of traversing more readily through the blocks or pulleys. In order to facilitate the management of the helm, the tiller-rope, in all large vessels, is wound about a wheel, which acts upon it with the powers of a windlass. The rope employed in this service, being conveyed from the fore end of the tiller to a single block on each side of the ship, forms a communication with the wheel, by means of two blocks fixed near the mizen-mast, and two holes immediately above, leading up to the wheel, which is fixed upon an axis on the quarter-deck, almost perpendicularly over the fore end of the tiller. Five turns of the rope are usually wound about the barrel of the wheel, and when the helm is a-midship, the middle turn is nailed to the top of the barrel with a mark, by which the helmsman readily discovers the situation of the helm. The spokes of the wheel generally reach about eight inches beyond the rim or circumference, serving as handles to the person who steers the vessel. As the effect of a lever increases in proportion to the length of its arm, it is evident that the power of the helmsman to turn the wheel will be increased according to the length of the spokes beyond the circumference of the barrel, so that if the helmsman employs a force of thirty pounds, it will produce an effect of from 90 to 120 pounds upon the tiller (the barrel being one-fourth or one-fifth of the radius of the spokes), which again forming the long end of a lever 10 or 15 times the length of its shorter arm, the force of the rudder will, by consequence, be from 10 times 90 to 15 times 120, or from 900 to 1800 pounds. When the helm operates by itself, the centre of rotation of the ship and her movements are determined by estimating the force of the rudder by the square of the ship's velocity. When the helm instead of lying in a right line with the keel, is turned to one side or the other, it receives an immediate shock from the water, which glides along the ship's bottom in running *aft*, on the side towards which the helm is turned, and pushes it towards the opposite side, whilst it is retained in this position, so that the stern, to which the rudder is confined, receives the same impression, and accordingly turns in one direction, whilst the head of the ship moves in the opposite. The more the velocity of a ship increases, the more powerful will be the effect of the rudder be-

ise the water will act against it with a force which reases as the square of the swiftness of the fluid, ether the ship advances or retreats. The direc- n given in the two cases will of course be con- ry.

HELMERS, JOHN FREDERIC, a Dutch poet, born Amsterdam, in 1767, was destined for commerce, l attended particularly to the study of the modern guages; but the reading of the German, French, l English poets soon inspired him with a taste for erature and poetry. Kindled by the classical dels of foreign countries, Helmers composed, in nineteenth year, an ode On Night, the beauty of ich revealed his talents. His ode, The Poet, first ablished his reputation. From this time, he yield- wholly to the impulse of his genius, and, in 1790, blished a larger poem, Socrates, in three cantos, ich gave him a high rank among the poets of his tion. But his tragedy, Dinomachus, or the Libera- n of Athens, met with but little success on its re- esentation. He afterwards undertook a theatrical rnal for dramatic criticism; but his attempt did t receive any encouragement from the Dutch blic. He afterwards devoted himself to lyric d epic poetry. In 1810, a collection of his poems as published at Amsterdam. His national poem, olland (in six cantos, Amsterdam, 1812), which as universally admired by his countrymen, soon llowed. Helmers died February 26, 1813. The orks found among his papers appeared, under the le *Nalezing van Gedichten*, at Haerlem (2 vols., 314 and 1815), and, almost at the same time, in nother better edition, at Amsterdam.

HELMET; a defensive armour, for the protection f the head, composed of skins of animals, or of etals. Some of Homer's heroes are represented as earing brazen helmets, with towering crests, adorn- d with plumes of the tails or manes of horses. mong the Romans, the *cassis* was a metallic helmet; e *galea*, a leathern one. (See Lipsius, *De Militia omana*, III., 5.) In modern times, they have been f different kinds, some with and others without iors.

HELMINTHAGOGA; medicines against worms.

HELMINTHIASIS; the disease which proceeds om intestinal worms.

HELMONT, John Baptist van, born, in 1577, at ussels, studied natural philosophy, natural history, d medicine, in which he made such rapid profi- ency, that, in his seventeenth year, he gave public ctures on surgery at Louvain. The study of the ncients convinced him of the insufficiency of many heir theories on the nature and cure of diseases; particular, the system of Galen appeared to him ave great defects. He announced, therefore, his ention of making a reform in medicine. But his bility to cure the itch suddenly inspired him with aversion to medical science, which he declared to uncertain, and renounced entirely. He left his istry, distributed all that he had gained by his prac- in medicine, and, for ten years, wandered about world; when, having become acquainted with an irical chemist, he entered eagerly upon the study emistry. After the example of Paracelsus, he loyed himself in seeking a universal remedy by ns of that study. His former passion for medi- now revived, but it was a novel kind of medi- , of his own creation. He styled himself *medicus gnem*, alluding to the source from which he de- d his remedies. He now married, and retired e little city of Vilvorde, near Brussels. Here he pied himself till his death with medical labours, ted of having found the means of prolonging and composed visionary theories on the spiritual physical formation of man, and on the causes and treatment of diseases. Though chemistry was still in its cradle, yet he made many discoveries, such as the laudanum of Paracelsus, the spirit of hartshorn, the sal volatile, &c. He intended to have overthrown the whole science of medicine, as it was taught in the schools, which he criticised with much justice; but what he produced himself was much more uncertain than all the existing theories. According to him, life is ruled by a principal power, which he called *Archæus, the ruler*, and by other subordinate powers. The system of Van Helmont resembles that of Paracelsus, yet it is more clear and scientific. Helmont never quitted his laboratory during the thirty years he lived in Vilvorde, yet he asserts that he cured annually more than a thousand men. The emperors Rodolph II., Matthias, and Ferdinand II., invited him to Vienna, with promises of wealth and dignities; but he preferred the independence of his laboratory. He died December 30, 1644. Having given his manuscripts, before his death, to his son, with the request that he would publish them if he thought fit, they were printed by Elzevir.

HELMSTADT; a town, with 5200 inhabitants, in the duchy of Brunswick. The university of Julia Carolina, established in 1576 in Helmstadt, was suppressed by Jerome, ex-king of Westphalia, December 10, 1809. The town has a gymnasium, a seminary for the education of teachers, &c., besides manufactories of linen, cotton, flannel, soap, hats, liqueurs, and perfumes. In the neighbourhood is a mineral spring.

HELOISE, ELOISE, or LOUISA, celebrated for her beauty and wit, but still more on account of her love for Abelard, was born in Paris, in 1101. After her cruel separation from her illustrious lover, she became prioress of the convent of Argenteuil; but she attended more to study than to the monastic discipline of those under her charge, who, finally, were dispersed, in 1129, on account of their licentiousness. She then accepted the invitation of Abelard, and entered, with some of her nuns, the oratory of Paraclete, where she founded a new convent. Here she lived in exemplary piety. The bishops loved her as a daughter, the abbots as a sister, and the laity as a mother. Abelard, at her request, wrote the rules for her convent, which were confirmed by pope Innocent II. She died in 1164. Contemporary writers speak in high terms of the genius of Heloise. She understood Latin, Greek, Hebrew, was familiar with the ancients, and had penetrated the depths of philosophy and theology. Among Abelard's letters, we find three which are ascribed to her, full of fire, genius, and imagination. The two first of her letters, which paint the conflict between her present duties and former feelings, and vividly contrast the inward storm of the passions with the repose of the cell, furnished Pope with some of the finest passages of one of his best productions. See *Abelard*.

HELOTS; slaves in Sparta. The name is generally derived from the town of Helos, the inhabitants of which were carried off and reduced to slavery by the Heraclidæ, about 1000 B. C. They differed from the other Greek slaves in not belonging individually to separate masters; they were the property of the state, which alone had the disposal of their life and freedom. They formed a separate class of inhabitants, and their condition was, in many respects, similar to that of the boors in some countries of Europe. The state assigned them to certain citizens, by whom they were employed in private labours, though not exclusively, as the state still exacted certain services from them. Agriculture and all mechanical arts at Sparta were in the hands of the Helots, since the laws of Lycurgus prohibited the Spartans from all lucrative occupations. But the

Helots were also obliged to bear arms for the state, in case of necessity. The barbarous treatment to which they were exposed often excited them to insurrection. Their dress, by which they were contemptuously distinguished from the free Spartans, consisted of cat's-skin, and a leather cap, of a peculiar shape. They were sometimes liberated for their services, or for a sum of money. If their numbers increased too much, the young Spartans, it is said, were sent out to assassinate them. These expeditions were called κρυπτεια; but this account has been disputed. Their number is uncertain, but Thucydides says that it was greater than that of the slaves in any other Grecian state. It has been variously estimated, at from 320,000 to 900,000. They several times rose against their masters, but were always finally reduced.

HELSINGFORS, in the grand-duchy of Finland, on the gulf of Finland, a seaport and commercial town, with an excellent and strongly-fortified harbour, has manufactories of sailcloth and linen; population, 8000. Since the cession of the grand-duchy to Russia, Helsingfors has been made the capital, on account of its commodious situation and its vicinity to Petersburg. October 1, 1819, all the higher offices of the government were transferred hither from Abo. This has promoted the growth of the place. Lat. 60° 10′ N.; lon. 20° 17′ E.

HELST, Bartholomew van der; a painter, born at Haerlem, in 1613. Without having studied the great masters of the Italian school, he attained to a high degree of excellence as a portrait painter. "Before I had seen the works of this painter," says Falconet, "I found it difficult to credit those who thought him superior to Rembrandt, Van Dyke, and similar masters. Since I have examined them closely, I believe that, without prejudice, Helst is, in some respects, superior to those great painters, for his style is more true to nature," &c. All his works show a grand manner; there is nothing frigid nor stiff. His drapery is flowing; his figures well drawn; the accessory parts are closely copied from nature. The year of his death is unknown; it is only certain that he lived in Amsterdam, and that his son was also a good portrait painter.

HELVETIA. Between the Rhone and the Rhine, the Jura and the Rhætian Alps (in the canton of the Grisons), lived the Helvetii, a Gallic or Celtic nation, more numerous and warlike than the neighbouring Gallic tribes. They were not known to the Romans until the time of Julius Cæsar, who, as governor of Gaul, prevented their intended emigration, and after many bloody battles, in which even the Helvetian women fought, pressed them back within their frontiers. Helvetia, which was less extensive than the present Switzerland, was divided into four districts, which had an entirely democratical constitution. Cæsar subjected the country to the dominion of the Romans, who established several colonies there, the names of which only have remained (for example, Augusta Rauracorum in the Frickthal), and introduced Roman civilisation. Christianity was afterwards introduced into Helvetia. See *Switzerland*.

HELVETIUS, Claude Adrien, a celebrated metaphysician, was born at Paris, 1715, and received a careful education. The tales of Lafontaine delighted his childhood, as Homer and Curtius captivated his youth. The study of Locke's Essay on the Human Understanding, at the college of Louis-le-Grand, inspired him with a love of philosophy, to which he remained faithful. After the termination of his law studies, he was placed by his father, a celebrated physician, Adrien Helvétius, at Caen, for the purpose of acquiring a practical knowledge of finance. At the age of twenty-three years, he obtained, through the patronage of the queen, the honourable and lucrative post of a farmer-general. Alive to all the pleasures of society, which were now placed within his reach, he did not suffer himself to be alienated from the muses. He kept up his early intimacy with many distinguished men of letters, and, with a noble liberality, supported several young men of talents. As farmer-general, he was distinguished by his mildness and indulgence from his colleagues, whose base practices filled him with indignation. He therefore resigned his office, and purchased the place of *maître d'hôtel* to the queen. So ambitious was he of every sort of applause, that he even danced on one occasion at the opera. He aspired no less after literary fame. At first he directed his efforts to the mathematics, because he once saw a circle of the most beautiful ladies surrounding the ugly geometrician Maupertuis, in the garden of the Tuileries. He next attempted to rival Voltaire by a number of philosophical epistles, and he is also said to have written a tragedy. The brilliant success of Montesquieu's *Esprit des Lois*, then inspired him with the bold resolution of preparing a similar work. He therefore determined to retire into solitude. But he wished to sweeten his retreat by the society of a wife, and, in 1751, he married Mademoiselle de Ligniville, no less distinguished for her beauty than her wit. In the retirement of his estate of Voré, he devoted himself entirely to the happiness of his dependents, to domestic enjoyments, and to study. In 1758, he published his book *De l'Esprit*, the materialism of which drew upon him many attacks. Objectionable as the doctrines in this work may be, it undeniably contains the most various information. Helvetius went, in 1764, to England, and, the year afterward, to Germany, where Frederic the Great and other German princes received him with many proofs of esteem. After his return to France, he published his work *De l'Homme*, which is to be considered as a continuation of the former, and contains a fuller development of the doctrines laid down in it; but, at the same time, many new ones, particularly such as relate to the science of education. Helvetius died in 1771, in Paris. Besides the above-mentioned works, he wrote epistles in verse, and an allegorical poem, *Le Bonheur*. There are several complete editions of his writings. His wife, daughter of the count Ligniville, was one of the most excellent women of her time. After his death, she retired to Auteuil, where her house, like that of Madame Geoffrin, became the rendezvous of the most distinguished literati and artists of her time. She died Aug. 12, 1800, at Auteuil.

HELVIG, Amalia von; one of the most distinguished female poets of Germany, was born at Weimar, Aug. 16, 1776. Her father travelled in France, England, Holland, and resided seven years in the Indies; and the mind of the lively girl was early awakened by his narratives of what he had seen and heard in foreign countries. When eight years old she spoke English and French fluently, besides her mother tongue. She had just reached the age of twenty years, when she lost her father; and the lady who now had charge of her education kept her so closely employed, that her poetic spirit found no opportunity to develope itself. She had already begun to make rhymes before she was seven years old; but in her fifteenth year, she went to reside at Weimar, and soon after became acquainted with Burger, Boie, Stolberg, and other poets of the time. At this period she began to learn Greek, and, four weeks after entering on the study, was able to commence the reading of Homer. A little poem, written by her, was presented to Louisa, duchess of Weimar, and found its way to Schiller, who invited the

uthor to his house at Jena. Goethe then passed nuch of his time at Jena, and the young poetess, in heir society, heard the most instructive observations n poetry and literature. She was afterwards ap-ointed lady of the court of Saxe-Weimar. Here she ecame acquainted with her future husband, whom he afterwards followed to Sweden. Her health uffered there, and she returned to her own country. n 1813, she published the first *Taschenbuch der agen und Legenden*. She translated several works rom the Swedish, among others, the *Frithiofs-Sage* f Es. Tegner, in 1826. She died in 1832.

HELVIN; the name of a rare mineral, bestowed y Werner, in allusion to its sun-yellow colour, found n a mine near Schwartzenburg, in Saxony, disseminated through an aggregate of chlorite, blende, and uoor, in minute tetrahedral crystals, with their solid ngles truncated. These crystals cleave parallel to he faces of the regular octahedron. Its hardness is .bout the same with quartz; its specific gravity, ·100. It consists, according to Gmelin, of silex, 3·258; glucine and a little alumine, 12·029; protxide of manganese, 31·817; protoxide of iron, ·564; sulphuret of manganese, 14·000; and volaile matter, 1·555.

HELVOETSLUYS; a sea-port in the province of Holland and kingdom of the Netherlands, on the outh side of the island of Voorn; twelve miles W. Dort; fifteen S.W. Rotterdam; lon. 4° 8′ E.; lat. 1° 50′ N.; population, 1208. It has a good harour, about twelve miles from the open sea, in the niddle of a large bay, capable of holding the whole leet of the country. The town is small, but well lefended with strong fortifications. This is the general port for packets from Britain, chiefly from he port of Harwich. Here is a naval school. The hip channel, from Rotterdam to Helvoetsluys, was completed in November, 1830. William III. sailed rom this port for England, Nov. 11, 1688, with 14,000 men.

HEMERODROMI; a kind of couriers among the Greeks, famous for their extraordinary swiftness, and used, on that account, by the state, as messengers. They were employed, not only in times of peace, for the conveyance of letters, but also in war, as spies and bearers of orders. Of their great swiftness, the ancients report several instances.

HEMLOCK. It is still a matter in dispute, whether the hemlock, so celebrated among the ancients, and used at Athens for the execution of those condemned to death, was the plant at present denominated by botanists *conium maculatum*, or the *cicuta virosa*. These are both umbelliferous plants, resembling each other somewhat in appearance, but differing essentially in the degree of their virulence, the *cicuta* being by far the most powerful. Another opinion is, that the deadly potion was a compound of the juice of several umbelliferous plants.

HEMLOCK SPRUCE. See *Spruce*.

HEMMLING, or HEMMLINK, Hans; an eminent painter, who lived about the middle of the fifteenth century. He is commonly thought to have been born in Flanders, and to have been carried, as a poor sick soldier, into St John's hospital, at Bruges, where, on his recovery, his extraordinary genius for painting disclosed itself. According to later researches, he was probably born at Constance, and went to the Netherlands in order to study the art of painting in the school of Eyck. De Bast, of Ghent, asserts, in his *Messager des Sciences et Arts* (1825, No. 4—7), that the name of this artist was Hans Memling. Of his works, which have remained in the Netherlands, the above-mentioned hospital possesses the best; among them, a reliquary of St Ursula, of which Van Keverberg published a description (1818), under the title *Ursula, Princesse Britannique d'après la Légende et les Peintures d'Hemmling*, containing also information on the other works of this artist.

HEMORRHAGE (Greek *αἷμα*, blood, and *ῥηγνυμι*, to burst); a flux of blood from the vessels containing it, whether proceeding from a rupture of the blood-vessels or any other cause. Hemorrhages produced by mechanical causes, belong to surgery; those produced by internal causes, to medicine. The cutaneous system is rarely, and the cellular and serous systems are never, the seats of hemorrhages; that of the mucous membranes is the most subject to them. The symptoms of the disease are not less various than its causes and its seats, and the treatment must of course be adapted to all these different circumstances. A hemorrhage from the lungs is called *hemoptysis*; from the urinary organs, *hematuria*; from the stomach, *hematemesis*; from the nose, *epistaxis*.

HEMORRHOIDS (Greek *αἷμα*, blood, and *ῥω*, to flow); literally, a flow of blood. Until the time of Hippocrates, this word was used, conformably to its etymology, as synonymous with *hemorrhage*. It was afterwards used in a narrower sense, to indicate the flux of blood at the extremity of the rectum, and in some other cases which were considered analogous to it; thus we hear it applied to the flow of blood from the nostrils, the mouth, the bladder, and the matrix. It is at present used to signify a particular affection of the rectum, although the disease is not always attended with a flux; in this sense it is also called *piles*. Certain general causes may produce a predisposition to this disease; in some cases, it appears to be the effect of a hereditary disposition; in general, it manifests itself between the period of puberty and old age, although infants and aged people are not entirely exempt from its attacks. The bilious temperament seems to be more exposed to it than any other. Men are oftener affected with it than women, in whom it is sometimes produced by local causes. It often shows itself in subjects who pass suddenly from an active to a sedentary life, or from leanness to corpulency. Any circumstance which produces a tendency or stagnation of the blood at the extremity of the rectum, is to be reckoned among the local causes. The accumulation of fecal matter in the intestines, efforts to expel urine, the pressure produced by polypi, the obstruction of any of the viscera, especially of the liver, worms, the frequent use of hot bathing, of drastic purges, and particularly of aloes, long continuance in a sitting posture, riding on horseback, pregnancy, the accumulation of water by ascites,—such are some of the ordinary causes of hemorrhoids. They are distinguished into several sorts, as external, when apparent at the anus; internal, when concealed within the orifice, blind or open, regular or irregular, active or passive, periodical or anomalous, &c. There is also a great difference in the quantity of blood discharged; it is usually inconsiderable, but, in some cases, is so great as to threaten the life of the subject. The quality, colour, &c., of the blood, also differ in different cases. The number, seat, and form of the hemorrhoidal tumours likewise present a great variety of appearances. When the disease is purely local, we may attempt its cure; but in the greatest number of cases, it is connected with some other affection, or with the constitution of the subject. In these cases, if the tumours are not troublesome on account of their size, or if the quantity of blood discharged is not very considerable, the cure may be attended with bad consequences. The best mode of treatment is, then, to recur to hygeitic rather than medicinal influences. The subject should avoid violent exercises; but moderate exercise will be

found beneficial; the food should not be too stimulating or nutritious. Travelling, or an active life, should succeed to sedentary habits. The constipation, with which the subjects of this disease are liable to be affected, should be remedied by laxatives or gentle purgatives. If bathing is used, it should be in lukewarm or cold water. Any thing which may be productive of a local heat, should be avoided; as warm seats, soft beds, too much sleep. If the pain is considerable, recourse should be had to sedatives, gentle bleeding, leeches. If the disease appears under a more severe form, more violent remedies will become necessary. If the sanguineous fluxion becomes excessive, particular care must be paid to regulate it. If the tumours acquire a considerable volume, surgical operations may become necessary. If any bad consequences result from the suppression of the hemorrhoids, care must be taken to give the blood the salutary direction which it had previously; this may be effected by the use of laxative baths, emolient fomentations, the application of leeches to the anus.

HEMP (*cannabis sativa*); a plant belonging to the same family with the hop and nettle, extensively cultivated, and important on account of the various uses of its seed and the fibres of its bark. Poultry and small birds are very fond of the former, and it furnishes an expressed oil, very good for burning, and also employed by painters; the latter is made into cordage, ropes, cables, and cloth of every quality, from that used for the sails of vessels to the fineness of linen. The stem is herbaceous, upright, simple, slightly pilose, attaining the height of four to six feet; the leaves opposite on foot-stalks, divided into five lanceolate and coarsely serrate leaflets; the male flowers, which are on separate stems, are green, resembling those of the hop, and consist of a five-leafed perianth and five stamens; the female flowers are inconspicuous, and the fruit is a little, hard, bivalve capsule, containing a single seed. The plant is annual, and possesses a strong odour, with intoxicating and narcotic propertles, on which account it is usual, in India and other Eastern countries, to mix the leaves with tobacco for smoking. It is a native of India and Persia, and was transported into Europe, where it is now cultivated successfully, even in the northern parts. In America, the hemp has become naturalized in many places, and is common in waste places, along road sides, &c.

It appears that although this plant was known to the ancients, yet they were unacquainted with the method of preparing its threads; lint or flax only having been so used. The quantity of hemp used in Great Britain is prodigious. The sails and cordage of a ship of war, of the first-rate, require 180,000 lbs. of rough hemp for their construction, and it is computed that it takes five acres of land to produce one ton of hemp. Only the coarser kinds of hemp are employed in making cordage, the finer sorts being used for linen, which although always coarser than that made from flax is yet incomparably stronger and equally susceptible of being bleached, both by the old and new processes. Hempen linen also improves in colour by wearing, whilst that from flax decays. The prices of hempen linen varies from tenpence to four shillings and sixpence per yard: and the finer kinds are sometimes preferred on account of their warmth and strength. The hemp of England is much superior to foreign, and that grown in Suffolk is never used in making cordage, being too fine. The hemp plant is said to possess the remarkable property of driving away almost all insects that feed upon other vegetables, wherefore the farmers on the continent sometimes sow a belt of it round their fields when they are very anxious to preserve their crops.

In order to encourage the growth of British hemp, government, in 1787, granted a bounty of threepence per stone on all hemp grown at home. The usual height of the plant when growing is from five to six feet. But this varies much, for that grown in Alsace sometimes exceeds twelve feet in height, and is upwards of three inches in circumference, the stalks being so deeply rooted that a very strong man can scarcely pull them up. In Catalonia, the plants attain a height of seven feet. In Italy, hemp is generally cultivated, particularly near Milan and Bologna. It is there sown upon the best land, composed of rich strong loams, and is manured with dung, rotten cloth, feathers, and horns brought from Dalmatia. When hemp is grown upon poor land it is finer in quality but smaller in quantity than that grown on a rich soil. It may be raised for many years successively on the same fields, provided they be well manured. An acre produces on an average thirty-six or thirty-eight stone of hemp, and the season for sowing it extends from 25th March to the 15th June. The seed must be sown thin, not more than two bushels to an acre, and if put in with a drill plough, a still smaller quantity will suffice. As the plants are either female or male, and the former only can produce seed, regard must be had to this circumstance in gathering in the harvest. For this purpose small paths are to be left open along the field lengthwise, at about seven feet distant from each other, to allow a person to pluck the male plants first, as the female require to remain standing a month longer to admit of the seed becoming fully ripe. The male hemp is known to be ripe by the falling of the flowers, and falling of the pollen, and from some of the stems growing yellow. The female plants are always less numerous than the male, and are known to be ripe by the stems becoming pale. It is advisable always to pull hemp rather under than over ripe.

The male hemp being stripped of its leaves, and dried in the atmosphere, may be stored up, or else it may be carried immediately to the ponds to be steeped, but there is an advantage attending the steeping it green, as it turns out of a better colour. The plants intended to raise good seed for sowing are generally sowed apart by themselves.

When the hemp is pulled, it must be taken in large handfulls, and the roots cut off; and the leaves, seeds, and lateral branches stripped off by means of a wooden sword or ripple. It is then made into bundles of twelve handfuls each, in order to be steeped in water. In Suffolk they usually steep it for four, five, or six days, preferring standing water, and the same water may be used three times during one season; but the first steeped has the best colour. The bundles are to be laid crosswise over each other, and care is to be taken in withdrawing them, so as not to intermingle them. It is better to let the hemp remain a proper time, and eleven days is sometimes necessary for this purpose. The slenderest hemp requires the longest steeping, and the operation is known to be completed by the inner reed separating easily from the fibres of the outer bark. When thoroughly steeped, the next operation is called *reeding*, and is performed either in a trough under water, or upon a table: the bundles being pressed down by weights at the upper end while it is going on. After the hemp has been reeded, it must be freed from the mucilaginous matter with which it abounds, and this is done by pouring water repeatedly through it, and afterwards squeezing it out very carefully, so as not to intermix or entangle the threads. A little soft soap (in the proportion of an ounce to three pounds of dry hemp) has been sometimes added to the last portion of

water employed, to render the hemp more soft and easy to dress. In Suffolk, they use machinery to break out the *reed* from the hemp. Beating the hemp is the next operation, which is now generally done by a water-mill, which raises three heavy beaters, that fall down alternately, and a boy attends to turn the heaps of the hemp. A method has of late been discovered, and put in practice, whereby the fibres of hemp are split and manufactured into yarn approaching in fineness to that formed of flax. Excellent cloth is manufactured of this yarn.

HEMSTERHUIS, Tiberius, a Dutch philologist, celebrated for his learning, particularly in the Greek and Roman languages, and for the new philological school which he founded, was born at Groningen, in 1685, and died in 1756, at Leyden, where he was professor of the Greek language and of history. His father was a learned and respectable physician in Groningen, from whom he received his first instruction; and, as early as his fourteenth year, he entered the university of his native city, where he studied particularly mathematics. Some years afterwards, he went to Leyden, where he was commissioned to arrange the manuscripts in the library of the university. He was not twenty years old when he was appointed professor of mathematics and philosophy at Amsterdam. Here he entered into the philological career. He now undertook an edition of Julius Pollux, the lexicographer, and was thus led into a correspondence with the great Bentley, whose overpowering, though friendly criticism, for a short time, discouraged the young man. But he soon applied himself more sealously to the study of all the Greek authors, in chronological order, and with such success, that he may justly be said to have been the most profound Hellenist of the age. He was, in the full sense of the words, a grammarian and critic at the same time, and he united to this the most comprehensive knowledge of all matters connected in any manner with his studies. We are indebted to him for the foundation of the study of the Greek language, on the basis of analogy, for which Joseph Scaliger and Salmasius had prepared the way. By this analogical method, new light was shed on the origin and signification of words; the relation of single words to similar ones was pointed out, as well as their relation to the Latin language, which he frequently traced back to the Æolian dialect. Hemsterhuis was not less familiar with Latin, although his style in that language wants the easy grace which we find in Ruhnken. This philologist and Valkenaer were his most distinguished pupils. His principal works are the above-mentioned edition of the *Onomasticon* of Julius Pollux, Select Dialogues of Lucian, and the Plutus of Aristophanes. Besides these, he wrote a number of excellent annotations and emendations to different authors, and several academical discourses. He was remarkable for mildness and modesty of character, and was entirely exempt from the severe and dogmatical tone of many of the Dutch philologists. His grateful pupil and friend, Ruhnken, in the classical memoir which he has consecrated to his memory, gives some fine traits of his character. Jac. Geel has published from the manuscripts of Hemsterhuis, which are preserved in the library at Leyden, *Anecdota Hemsterhusiana* (Leyden and Leipsic, 1825.)

HEMSTERHUIS, Francis; son of the preceding. To the classical learning which he inherited from his father, he added the study of philosophy, in particular that of Socrates, which speaks in all his productions. Hence his predilection for the animated form of the dialogue, in preference to a systematic method. The sensual system of Locke was the foundation of his philosophy, but was extended by him with great acuteness, interwoven with observations of his own, and exhibited in a manner full of life and taste. In the society of the princess Gallitsin, to whom he dedicated several of his writings, under the name of *Diotima*, and of the count of Furstenberg, he made a journey through Germany, in which he collected a rich treasure of observations on the fine arts, which he communicated to his friend and colleague Smeth, in a letter originally written in Dutch, and translated into French. His philosophical views he has expressed, in particular, in the dialogue *Sophyle ou de la Philosophie*. Another class of his writings refers chiefly to the philosophy of the arts and to archæology; among which is, the *Lettre sur la Sculpture* (1760), in which he treats on the objects of the fine arts, and in particular of sculpture, and on their different periods. The dialogue *Aristée ou de la Divinité* (2d edit., 1779) is devoted to the philosophy of religion, as well as the celebrated *Lettre de Diocles à Diotime sur l'Athéisme* (1785), which was first made known and answered by his friend F. J. Jacobi (Essay on the Doctrine of Spinoza). His other writings are a dialogue *Alexis, ou de l'Age d'Or* (On the Golden Age), and the masterly *Description philosophique du Caractère du feu M. Fr. Fagel* (1773). All these writings were collected and published by Jansen, first in 1792, and in a 2d edition in 1809 (Paris, in 2 vols.) Of the circumstances of his life, we know nothing more particular, than that he was born in 1720, that he resided first at Leyden, then at the Hague, as a private individual; that he occupied, for some time, the post of first clerk in the office of the secretary of the United Netherlands, and was one of the directors of the drawing academy at Amsterdam. He died at the Hague, in 1790.

HEMUS. See *Balkan*.

HENAULT, Charles John Francis; president of the parliament of Paris; an eminent French historian, and writer on polite literature. He was the son of a farmer-general, and was born at Paris in 1685. He first adopted the ecclesiastical profession, and entered among the fathers of the oratory; but he quitted that society for the long robe, and obtained the posts of president of the chamber of inquests, and superintendent of the finances of the queen's household. He produced a poem, which, in 1707, obtained a prize from the French academy. In 1713, his tragedy of Cornelia was brought on the stage, where, however, it was not well received. In 1723, he was admitted into the French academy; and he also became a member of the academy of inscriptions and belles-lettres, and of other literary associations. He was intimately connected with madame du Deffand, and from his rank, as well as his talents, he held a distinguished station among the Parisian literati. His *Abrégé Chronologique de l'Histoire de France*, exhibiting a tabular view of French history, has been translated into several languages, and been repeatedly imitated; last edition (Paris, 1821), continued by Walckenaer. He was also the author of comedies, poems, academical discourses, &c. He died in 1770. In the following year was published, posthumously, his *Histoire Critique de l'Etablissement des Français dans les Gaules* (2 vols. 8vo.); and in 1806, appeared *Les Œuvres inédites du Président Hénault* (8vo.).

HENBANE (*hyoscyamus niger*); a herbaceous annual plant, growing to the height of about two feet, with sinuate leaves, and yellow flowers, veined with purple, and situated in the axils of the superior leaves. The whole plant is hairy, and, like others of the same natural family (*solaneæ*), possesses a heavy, disagreeable odour, and dangerous narcotic properties. Cases of poisoning, from eating this plant

through mistake, have been frequent in Europe. This plant has been imported from the eastern continent, and has now become naturalised in America, occurring in waste places, along road-sides, in various parts of the Union. From its narcotic qualities, it is occasionally employed in medicine. Twelve species of *hyoscyamus* are known, all of them natives of the eastern continent.

HENDECASYLLABLES; a verse of eleven syllables, which among the ancients, was used particularly by Catullus, and which is well adapted for elegant trifles. The measure is

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HENGIST, the founder of the kingdom of Kent, in Great Britain, and his brother Horsa, were renowned among the Saxons for their bodily strength and the antiquity of their family, which derived its origin in a direct line from Odin. In 449, the Britons sued for aid from the Saxons, against the inroads of the Scots and Picts. The Saxons had long been desirous of invading this beautiful island, and therefore gladly accepted the invitation. Under the command of Hengist and Horsa, they landed at the mouth of the Thames, attacked the enemies of the Britons, and defeated them near Stamford. The victory, obtained with so much facility, convinced them that they could easily subdue a people who were unable to resist so feeble an enemy. They sent intelligence to Saxony, of the fertility and wealth of the country, and represented as both easy and certain, the subjection of a people who had so long forgotten the use of arms, and who were divided among themselves. As soon as they had received reinforcements from home, they sought occasion for a quarrel, under the pretext, that their subsidies were ill paid, and their supplies withheld; and, ceasing to dissemble any longer, they united with the Scots and Picts, and attacked the Britons. The latter had taken up arms, deposed their king, Vortigern, who had become odious by his vices and by the ruinous consequences of his policy, and placed his son Vortimer upon the throne. The war was carried on with the greatest fury. The Anglo-Saxons penetrated to the interior of the country, laying waste all before them, and practising the most shocking cruelties. The Britons were forced to flee or submit to the yoke of the victors. Some fled to Armorica (*Haute-Bretagne*), to which they gave their name. Hengist, who had lost his brother in the battle near Eglesford (now Ailsford), founded the kingdom of Kent, which embraces the present counties of Kent, Middlesex, Essex, and part of Surrey. He established his residence in Canterbury, and died about the year 488, leaving his kingdom to his posterity. A brother and a nephew, whom he had called over to England, settled in Northumberland. Their example was followed by other chiefs, who founded the Saxon Heptarchy.

HENKE, Henry Philip Conrad, vice-president of the consistory of Wolfenbuttel, first professor of theology at Helmstadt, the son of a minister in Brunswick, was born in 1752, at Hehlen. His father's death left him, at the age of twelve years, in indigence, and he was supported by the liberality of some wealthy patrons. He applied himself particularly to philology. His favourite author was Quintilian, with a translation of whom he began his literary career. Henke was one of the editors of the Latin Journal, then published under the direction of Schirac, professor in Helmstadt, and received his degrees in the philosophical faculty. In 1778, he received the place of a professor extraordinary of theology at Helmstadt. His literary reputation was founded on his Ecclesiastical History, of which the first volume appeared in 1788, and which passed through several new editions before it was completed by Vater, 8 vols (Konigsberg, 1820). This book contains a treasure of historical learning. Henke was an enemy of that dogmatical theology, which imposes constraints on opinion, and discourages free investigation. He was a Protestant, in the true sense of the word. His work on dogmatics is written in classical Latin, and is another proof of his learning in the history of theology. He went, in 1807, as deputy for Brunswick to Paris, to pay homage to the king of Westphalia. He died May 4, 1809.

HENLEY, John; an English clergyman, possessed of considerable talents, but principally distinguished for the irregularity of his conduct, and commonly known, towards the middle of the last century, by the title of *Orator Henley*. He was educated at Cambridge, and entered into holy orders. After having conducted a free school, and held a curacy, he grew tired of his secluded situation, and went to London in search of an ampler field for his abilities. He was first engaged as a preacher at an Episcopal chapel. Dissatisfied with his prospects of church preferment, he resigned his appointments, and commenced public orator. Having opened a chapel in the neighbourhood of Newport market, he gave lectures on theological topics on Sundays, and other subjects on Wednesdays, every week. Novelty procured him a multitude of hearers; but he was too imprudent to gain any permanent advantage from his project. After having served as a butt for the satirical wits, poets, and painters of his time, he removed his oratory to Clare market, and sank into comparative obscurity and contempt, previously to his death in 1756.

HENLOPEN; a cape on the coast of Delaware, at the entrance of Delaware bay. It is eighteen miles south-west of cape May. Latitude of the light-house on the cape, 38° 47′ N.; lon. 75° 10′ W. The light-house is of an octagon form, handsomely built of stone, 115 feet high, and its foundation is nearly as much above the level of the sea.

HENNA PLANT (*Lawsonia alba*), the *cyprus* of the ancients, is a shrub bearing opposite entire leaves, and numerous small flowers, which are disposed in terminal panicles, and possess an agreeable odour. Externally it bears considerable resemblance to the European privet, but belongs to the natural family *lythrariea*. It grows in moist situations throughout the north of Africa, Arabia, Persia, and the East Indies, and has acquired celebrity from being used by the inhabitants of those countries to dye the nails of their fingers, and the manes, hoofs, &c., of their horses. For this purpose the leaves are dried, powdered, and made into a paste with hot water, which, when applied to the above-mentioned parts, leaves a yellow colour, requiring, however, to be renewed every three or four weeks. The Egyptian mummies have their nails stained yellow, probably by the use of the henna. This circumstance, however, is by some referred to the various drugs used in the process of embalming. It is cultivated extensively in Egypt, and the powdered leaves form a large article of export to Persia and the Turkish possessions. The colouring matter of this plant is very abundant, and it may be advantageously used for dyeing woollens, not only yellow, but brown of various shades, provided that alum and sulphate of iron be employed.

HENNEPIN, Louis, a French recollet friar, a missionary, and a traveller in North America, was born in Flanders about 1640. He entered a convent, and being sent by his superiors to Calais and Dunkirk, the stories he heard from the sailors inspired him with a desire to visit distant countries. At length he embarked for Canada, and arrived at Quebec in 1675. Between that period and 1682, he explored the regions afterwards called Louisiana, and, returning to Europe, published an account of his researches,

ntitled *Description de la Louisiane nouvellement découverte au sud-ouest de la Nouvelle France, avec la Carte du Pays, les Mœurs et la Manière de Vivre des Sauvages* (Paris, 1683, 12mo). He afterwards produced other works, containing fuller descriptions of he result of his observations.

HENRIETTA, Anna, of England, duchess of Orleans, daughter of king Charles I., was born at Exeter, England, June 16, 1644, amidst the turbulent scenes of the civil war. She was hardly three weeks old, when her mother fled with her to France, and, after the death of Charles, repaired to the convent of Chaillot, and there devoted herself to the education of her daughter. Henrietta united with great sweetness of character the charms of a beautiful person. Her nuptials with the brother of Louis XIV., Philip of France, duke of Orleans, were celebrated in March, 1661; and Louis XIV., to whom her hand had been offered, now seemed to regret that he had refused the lovely Henrietta. He did not conceal his admiration for her, and the princess is said not to have remained insensible to the homage of the king. This circumstance, and the indiscretion with which she permitted the attentions of some of the courtiers, excited the jealousy of the duke of Orleans, and rendered their marriage unhappy. Henrietta would have suffered more from the severe and gloomy character of her husband, had she not found protection in the king, who afterwards employed her mediation in political affairs. Louis XIV. was desirous of detaching her brother, Charles II., from the triple alliance with Holland and Sweden, in order to accomplish his plan of obtaining possession of a part of Holland. As the common method of diplomatic transactions was not sufficient for this purpose, Louis resolved to make his sister-in-law his confidant in this affair, and the duchess of Orleans embraced his proposals with the greater readiness, as they flattered her pride, and opened a wide field for her spirit of intrigue. She went, therefore, in 1670, with the court, to Flanders, and, under pretence of visiting her brother, passed over to Dover, where Charles was awaiting her arrival. Mademoiselle de Kéroual, a native of Brittany (afterwards mistress of Charles II., under the title of duchess of Portsmouth), accompanied her. The persuasions of the sister, aided by the charms of her companion, succeeded in gaining Charles II., in the short space of ten days, entirely to the interest of Louis. Soon after madame d'Orleans' return to France, while all were eager to offer their congratulations on her success, she was suddenly seised with violent pains, which terminated her life at St Cloud, June 29, 1670. A suspicion of poison was immediately excited, and, although, on the examination of the body in the presence of the English ambassador, the physicians asserted the contrary, there is little doubt, that she fell, in the flower of her age, a sacrifice to a base revenge. It may be gathered from the facts collected by the second wife of the duke of Orleans, the princess of Bavaria, and from other accounts, that the chevalier de Lorraine (the intimate friend of her husband) was considered the contriver of this detestable crime. He was then living in exile in Rome, and was desirous of returning to France, and knew her to be the only obstacle to his return. The circumstance that Louis XIV. permitted the chevalier, two years after the death of the duchess, to appear again at court, and raised him to the dignity of a marshal of France, by no means weakens this suspicion, since the king then stood in need of the influence of the chevalier over the duke of Orleans. The sweetness of her manners made this unfortunate princess an object of general regret, and her grace and beauty often caused her to be compared with her still more unfortunate ancestor, Mary Stuart. It is related that the oral confession made to Louis XIV. by the *maître d'hôtel* of the duchess, entirely convinced the king of the guilt of the chevalier de Lorraine, but that motives of policy, both in regard to his brother and to England, induced him to throw a veil over the whole transaction, and to leave even the actual perpetrator of it unpunished. Bossuet pronounced her funeral oration.

HENRY I. of Germany, (*the Fowler*; a surname which, according to the account of recent writers, he received from the circumstance that the messengers of the German princes, sent to announce his election, found him engaged in fowling) was born in the year 876, and was the son of Otho the Illustrious, duke of Saxony, who had refused the regal dignity offered him in 912. Henry, on the death of his father, became duke of Saxony and Thuringia. He was elected sovereign of Germany in 919, at Fritzlar. He had to contend with anarchy within and enemies abroad, but his prudence and activity overcame these difficulties. Lorraine, which had been separated from Germany by the Western Franks, Henry reunited to the German empire in 923, and erected it into a duchy. During the disturbances in Germany, the Hungarians had often made inroads without meeting much resistance, and compelled the payment of a yearly tribute. A general of the Hungarians having been made prisoner, Henry released him without ransom, and, in 924, made a truce of nine years with these barbarians without paying tribute. During this time, he improved the art of war among the Germans, exercised the troops, and gave a new arrangement to the cavalry, whose heavy armour had hitherto prevented it from effecting any thing against the Hungarian light-horse. One of the most useful measures which Henry adopted for the defence of Northern Germany was, the surrounding the cities, which for the most part were nothing but a collection of log and mud huts, with walls and ditches. The ninth part of the nobility and freemen were compelled to remove to these cities, and those who remained without the city had habitations provided for them in case of a hostile invasion; provisions were also brought in from the country for their support. All public meetings for the discussion of public affairs, he provided, should be held in these cities. These measures gradually formed a third estate, to which Germany and other countries are chiefly indebted for their progressive civilisation, since in the cities originated the mechanical trades, manufactures, and commerce. While Henry thus provided for the internal regulation of Germany, he attended no less to the protection of the frontiers. In order to prevent the invasions of the Normans or Danes, he carried the war into their own country, and thus extended the limits of Germany over the Eyder as far as Sleswic, where he founded a Saxon colony, and placed a margrave, in 931. Different Sclavonic and Wendish tribes in the Mark and in Meissen, as well as the Bohemians, were compelled to submit to him; and he founded the margraviates of Meissen in 927, and North Saxony, afterwards Brandenburg, in 931. At the end of the nine years' truce with the Hungarians, he refused the tribute. They entered Thuringia and Saxony with two armies, but were completely routed by Henry before Merseburg (in 933 and 934). They were obliged to flee with the loss of all their booty and prisoners. This success was the fruit of the improvements in discipline which Henry had introduced, and of the reputation which he had acquired among the Germans, who now willingly supported him. The Hungarians did not dare, for a long time after, to repeat their incursions into Germany. After these successes, Henry desired to go to Italy, in

order to be crowned emperor at Rome; but he died in 936, at Memleben, a little more than sixty years old, after a fortunate and glorious reign of sixteen years, and was buried with great pomp at Quedlingburg. He was distinguished for excellent qualities, mental and bodily. His naturally clear understanding supplied his defects of learning. He has been reproached for his love of show, and the impetuosity of his temper. What he had begun, his son and successor, Otho I., gloriously completed.

HENRY III. of Germany, son of the emperor Conrad II., and descended from the Salian Franks, was born in 1017, and succeeded his father in the imperial dignity, 1039. He had already been chosen king in 1027. Nature had given him the talents, and education the character suitable for an able ruler. The church was compelled to acknowledge its dependence on him. Upon his first journey over the Alps, in 1046, he deposed three popes, put upon the vacant chair a new one, Clement II., and established his right to interfere in the choice of the Roman bishop so firmly, that as long as he lived the papal chair was filled in submission to his will. The remainder of the clergy were also under his strict scrutiny. In all the parts of his German, Italian, and Burgundian territories, no spiritual dignitary dared to bestow any important office, or to appropriate the property of the church, without consulting him. The temporal lords he held not merely in dependence, but in actual subjection. The duchies and counties he filled or left vacant at his pleasure, and the whole empire was at length changed into a monarchy dependent upon the king alone. Henry now reigned despotically, but displayed, in every thing which he undertook, a steady and persevering spirit. All classes were at length dissatisfied with him; however, the priests and clergy, on account of his great show of piety, gave him their approbation, and the surname of the *pious*. Henry died in 1056, at Bothfeld, after he had, three years before, caused his son to be chosen his successor.

HENRY IV., the son of the preceding, was born in 1050, and at the death of his father was only five years old. At the age of fifteen, Henry assumed the government at the diet of Goslar. The pernicious counsels of Adelbert, archbishop of Bremen, soon produced troubles, especially in Saxony, where Henry committed many acts of violence. The Saxons joined with the inhabitants of Thuringia, who suffered under the same grievances, and drove Henry from Saxony (1073), destroyed many of the castles which he had built to overawe the inhabitants, and compelled him the same year to an accommodation, in which the destruction of the remaining castles was stipulated. But some churches having been destroyed by the populace, Henry accused the Saxons to the pope of sacrilege, and thus gave him an opportunity to interfere as umpire. The Saxons offered to make every satisfaction; but Henry suddenly invaded their territory with a powerful army, and attacked them, in 1075, at Langensalza on the Unstrut, where they suffered a total defeat. Henry took all their princes and nobles prisoners, sent them into other countries, and treated the people like an angry victor. The Saxons, in turn, now complained to the pope. Gregory VII. (Hildebrand), who had been elevated to the papal chair some years before, without the consent of the imperial court, eagerly seised this opportunity to extend his power, and, in 1076, summoned Henry, under penalty of excommunication, to appear before him at Rome, and answer to the complaints of the Saxons. Henry regarded this threat so little, that he instigated the bishops, who were assembled by his order at Worms, to renounce their obedience to the pope. Gregory, however, pronounced the sentence of excommunication against him, and absolved his subjects from their allegiance, and Henry soon found himself deserted, and in danger of losing every thing. In this state of affairs he was obliged to go to Italy and make his submission to the pope. He found Gregory at Canossa, not far from Reggio, a strong castle belonging to Matilda, countess of Tuscany, whither he had retired for security. Three days successively, Henry appeared in a penitential dress, in the court of the castle, before he could obtain an audience of the pope. He was released from the excommunication only under the most severe conditions, viz., to be obedient to the pope in all things, &c. The insolence with which the pope used his victory produced a reaction; the Italian princes, who had long been dissatisfied with Gregory, and were desirous of deposing him, gathered round Henry, who was not disposed to fulfil the hard conditions imposed upon him, and offered him their assistance. The German princes, however, at the instigation of the pope, assembled at Forcheim in 1077, and elected Rodolph, duke of Suabia, king. Henry hastened back to Germany, and overcame his rival, who lost his life in battle, in 1080. Henry's next adversaries, Hermann of Luxemburg, and Egbert, margrave of Thuringia, were still less able to oppose him. Gregory again excommunicated Henry; but, at the council of Brixen, in 1080, he was deposed by the German and Italian bishops as a heretic and a sorcerer. In 1081, Henry marched into Italy, to take vengeance on Gregory, who had shut himself up in the castle of St Angelo, and caused himself to be crowned at Rome, by the pope, Clement III. whom he had himself named. Gregory took refuge among the Normans in Calabria, and died at Salerno in 1085. The dissatisfaction against Henry in Germany had not subsided; his oldest son, Conrad, rebelled against him, but was overcome, and died at Florence in 1101, deserted by his partisans. Henry caused his second son, Henry, to be elected his successor (1097), and crowned. But the latter, regardless of his oath not to interfere in the government during the life of his father, suffered himself to be seduced into rebellion. He made himself master of his father's person in 1105, by stratagem, and compelled him to abdicate the throne at Ingelheim. Henry IV. ended his life and his sorrows, in neglect, at Liege, in 1106, and, as he died under sentence of excommunication, was not buried till five years after, when the sentence was taken off, and his remains were interred at Spire. He had received from nature good talents, prudence, and courage, but his defective education had rendered him in the highest degree stubborn. He was an able warrior, and was victorious in sixty-two battles.

HENRY V., the son and successor of the preceding, emperor of Germany, was born in the year 1081. He made himself disgracefully notorious by his conspiracy against his father, and by his cruel treatment of him. Scarcely had Henry V. ascended the throne when he declared himself against the usurpations of the Romish court, and the unfortunate question of investiture anew distracted the empire. A war commenced by him against the Hungarians and Poles was unfortunate. In 1111, he married Matilda, the daughter of Henry I., king of England; and the rich dowry of this princess gave him the means of undertaking an expedition over the Alps, in order to receive the imperial crown from the pope in Rome. But, as Pascal would consent to confer it only upon the condition that those rights which had already been claimed by Gregory, should be formally conceded, and as the bishops continued to add fuel to the fire which was already kindled, Henry determined to put an end to the dispute by an act of violence. He

caused the pope to be conveyed away from the altar, while at mass, and cut down, in the streets of Rome, all who opposed him. After an imprisonment of two months, Pascal yielded; Henry was crowned without any new conditions, and, upon his knees, received from the proud prelate the permission to inter, in consecrated ground, the remains of his unhappy father, whom he had himself conspired against. The disburbances in Germany soon brought Henry back from Italy. While he was engaged in fighting against Lothaire, duke of Saxony, the Roman bishop excited a rebellion in Italy, and among the princes of the German empire, against him, and declared that the peace which had been concluded with the emperor was compulsory. This war continued two years, and devastated Germany in a shocking manner; after which, Henry made a second expedition to Italy, and compelled Pascal to fly to Apulia. After his death, which soon took place, the cardinals elected Galatius II. Henry, dissatisfied with this, caused Bourdin, archbishop of Braga, under the name of Gregory VIII. to be chosen. Galatius went to Vienna, where he collected together a council, and excommunicated Henry. The successor of Galatius, Calixtus II., did the same at the council of Rheims. By this, and by the continual insurrections of the nobility of the kingdom, Henry was at length compelled to yield. He subscribed, in 1122, the concordat of Worms, in which he declared his renunciation of the right of investiture by the ring and staff, and confirmed to all the churches the free choice of their prelates; but the choice of the bishops and abbots of the German kingdom was to be made in the presence of the emperor, and the person elected was to receive investiture from the emperor, by the sceptre, in regard to his temporal possessions and privileges. In order to furnish occupation to his turbulent vassals, Henry sought a pretext for a war with France. But before this broke out, a contagious disease carried him off, at Utrecht, May 22, 1125. Henry was a disobedient son, a ruler without power, without fidelity, and without religion. During his reign, the vassals and feudal tenants of the crown made themselves independent princes, and the political and national division of Germany was, as it were, sanctioned for posterity. He was the last ruler of the imperial family of the Franks, which was succeeded by the Suabian house.

HENRY VII., emperor of Germany, son of the duke of Luxemberg, was chosen emperor, Nov. 29, 1308, after an interregnum of seven months from the death of Albert I. He was the first German emperor who was chosen solely by the electors, without the interference of the other estates of the empire. Charles of Valois was his competitor. Henry, however, obtained the preference, chiefly through the agency of Clement V., who, although a Frenchman by birth, declared himself secretly in favour of the prince of Lorraine. One of the first acts of his government was to punish the murderers of Albert I. (q. v.) By the marriage of his son John with the heiress of Bohemia, Henry secured to his family this important kingdom, to the exclusion of Henry, duke of Carinthia, who was the next heir. He then undertook an expedition to Italy, and compelled the Milanese to place upon his head the iron crown of Lombardy. Henry suppressed, by force, the revolt which then broke out in Upper Italy; took Crenona, Lodi, Brescia, by storm; caused his chancellor Turiani, the secret leader of this insurrection, to be burnt, and then went to Rome, of which Robert, king of Naples, had possession, and refused him entrance. Having captured the city, he was crowned Roman emperor by two cardinals, while, in the streets and different quarters of the city, the work of murder and pillage was still going on. He then marched to Florence, put Robert of Naples under the ban of the empire, and threatened the inhabitants of Florence and Lucca with death if they did not instantly surrender. Notwithstanding this, they defended themselves vigorously; and, as Henry was marching against Naples, he died suddenly at Buonconvento, Aug. 24, 1313, in the fifty-first year of his age. There is a story that he died of poison, administered by a Dominican named Montepulciano, in the consecrated wine of the eucharist. Clement V. immediately excommunicated the body of the emperor, and absolved Robert of Naples from the ban. After the empire had remained without a head during fourteen months, Louis of Bavaria was chosen emperor. John, king of Bohemia, and son of Henry, thirty years after his father's death, formally acquitted the Dominicans from the suspicion of having poisoned him.

HENRY THE LION, the most remarkable prince of Germany in the twelfth century, was born in 1129. His father died in 1139, of poison. The son inherited, with the large possessions, the numerous feuds of his father. In 1146, Henry assumed the government of Saxony. At the diet of princes, in Frankfort (1147) he demanded restitution of Bavaria, which had been taken from his father, and given to an Austrian prince. The emperor refused, and a war ensued, which terminated to the advantage of Henry. The emperor Frederic I. restored Bavaria to him in 1154, and Henry was then at the height of his power. His possessions extended from the Baltic and the North sea to the Adriatic. Henry soon became involved in disputes with the clergy, who formed a confederacy at Merseburgh, in 1166; but Henry overcame them. About two years afterwards, he separated from his wife, and married Matilda, daughter of Henry II. of England. He then went on an expedition to the Holy Land, and, during his absence, his enemies, and even the emperor, made encroachments on his dominions. In 1174, at the head of a large body of troops, he followed Frederic I. on his fifth expedition to Italy, but left him at the siege of Alessandria. In consequence of his quarrel with the emperor, and his non-appearance after being summoned before three diets, he was put under the ban of the empire. His dominions were given to other princes. Henry defended himself, for a time, successfully; but he was at last obliged to flee to Lubeck. In 1182, he asked pardon of the emperor, on his knees, and Frederic promised him that he should retain his hereditary possessions; but he was obliged to leave Germany for three years, and went to England. He returned in 1184; but Frederic, suspicious of the proud and high-minded Henry, obliged him to go once more to England, for three years, or to follow him to Palestine. He preferred the first; but, as the promise to leave his hereditary possessions undisturbed was violated, he went back (1189) and conquered many cities. A reconciliation was at last effected between the contending parties. His eldest son had married Agnes, the niece of Frederic I., and this connexion of a descendant of the mightiest Guelf with the greatest Gibeline, seemed to be the signal for a termination of the old quarrel. The quarrel between the emperor and Henry was concluded, and he died in peace at Brunswick, 1195, sixty-six years old. His tomb is still to be seen there. Henry was noble-minded, brave, and indefatigable, but stubborn, proud and passionate. Though constantly engaged in a struggle with the clergy, he was pious. He was much in advance of his age in fostering industry, science, commerce, and the arts. He always bore up manfully against misfortune.

HENRY THE NAVIGATOR, the fourth son of king John I. of Portugal, was born in 1394. Portugal was then tranquil and prosperous, the people were active and enterprising, and the ambition of discovery and conquest almost universal. The infant Henry especially distinguished himself by his zeal. The generous youth gave early and brilliant proofs of courage. His love of arms, however, was surpassed by his love of the sciences, particularly mathematics, astronomy, and navigation. When the Portuguese conquered Ceuta, in 1415, Henry distinguished himself by his bravery, and was knighted by his father, after whose death he chose for his residence the city of Sagres, in Algarve, near cape St Vincent, and vigorously prosecuted the war against the Moors in Africa. His vessels attacked their coasts, and, on these expeditions, his sailors visited parts of the ocean which the navigators of that age had long regarded as inaccessible. But Henry meditated the discovery of countries till then unknown. Familiar with the previous progress of geographical science, he neglected no opportunity, during his campaigns in Africa, to obtain from the Moors a knowledge of the regions bordering on Egypt and Arabia, and to inquire into the probability of a passage to the treasures of India by a voyage round the western coast of Africa. The Arabians alone, at this period, were acquainted with this portion of the earth. From this source, Henry derived circumstantial information concerning the interior of Africa; also of the coast of Guinea, and other maritime regions. He conversed with men of learning; and, finding their testimony agreeable to the reports he had collected, he resolved to execute his designs. He erected at Sagres an observatory and a school, where young noblemen were instructed in the sciences connected with navigation. Though the compass was already known in Europe, Henry was the first who applied it to navigation. To him, also, a principal part is ascribed in the invention of the astrolabe. (q. v.) From time to time, he sent vessels on voyages of discovery to the coasts of Barbary and Guinea; these expeditions, however, produced at first no important results. In one of these voyages, two of the pupils formed in his school, Juan Gonsales Zarco and Tristan Vas, driven by storms, discovered Puerto Santo and Madeira (q. v.), the latter in 1418. The first object of Henry was now to settle the new islands, and to cultivate the fertile soil. The colonists in Madeira had burnt down the thick woods, to make room for cultivation. Henry foresaw that wood was an article that would be afterwards wanted, and ordered new forests to be planted. To obviate the necessity of purchasing sugar from the Arabs, he caused sugar-cane to be brought from the Sicilies, which flourished excellently in the moist soil of the island. After the discovery of Madeira, Henry directed his thoughts to the coast of Guinea. Nothing but his unfailing perseverance could overcome the difficulties of this bold undertaking. Cape Non, it was affirmed, was the limit put by God to the ambition of man. Henry heard all the objections of his short-sighted opposers with calmness and equanimity. Gillanes, one of his navigators, offered to sail round the formidable cape, and to explore the coast of Guinea. He set sail in 1433, safely doubled cape Bojador, and took possession of the coast by the erection of the cross. The bold adventurer was rewarded with honours and presents. The next year, a larger vessel was sent out, which proceeded 140 miles beyond Bojador. These successful enterprises put a stop to censure, and Henry found more support. His brother Pedro, who administered the government during the minority of Alfonso V., effectually assisted him, and confirmed him in the possession of the islands of Puerto Santo and Madeira, which Henry had before received from the late king Edward. Pope Martin V. not only confirmed the gift of these two islands, but also granted to the Portuguese all the countries which they should discover along the coast of Africa, as far as to the Indies. In 1440, Antonio Gonsales and Nunno Tristan reached cape Blanco; and this new success made a favourable impression upon the nation. Young men of enterprise were the more eager to engage in voyages of discovery, as they were tempted with the prospect of obtaining gold dust. Henry had, thus far, paid all expenses of the expeditions alone; but companies were now formed of enterprising men, who ventured upon these voyages under his guidance; and the whole people soon became animated with the love of discovery. In 1446, Nunno Tristan doubled cape Verde; and, two years later, Gonsales Vallo discovered three of the Asores islands, about 1000 miles from the continent. Henry continued these efforts with vigour till his death in 1463, at the age of 67. He had the joy to survive the discovery of Sierra Leone, and to see upon the throne of his country John II., a prince who pursued with zeal the preparations commenced with such flattering prospects of success. The important consequences which the world has derived from the extension of navigation, and the discovery of a new path to India, which was the result of his enterprises, have secured for him an undying name in history.

HENRY (surnamed the *Younger*), duke of Brunswick; born 1498; a man of an impetuous, restless, and ambitious character, but of a manly mind, the declared enemy of the reformation. He was one of the combatants in the famous battle against the peasants (May 15, 1525.) His restless disposition led him to attack the city of Goslar. With 1000 horsemen he aided Charles V. in a war against Venice; but disease destroyed his troops almost entirely, and he hardly escaped the vigilance of his enemies. When the famous confederation of the Protestant princes at Smalkalden took place (1537), Henry was made chief commander of the Catholic forces. At Hockelem, he and his son were made prisoners. The battle at Muhlberg (1547), so fatal for the Protestants, delivered him from his imprisonment. He subsequently fought several battles; lost in one his two eldest sons, and died in 1568. Henry is also known in story through his love to Eva Trott, of whom a romantic tale is related, that Henry induced her to feign the appearance of death, after which a formal burial took place; but Eva herself was conveyed secretly to the castle of Stanfenburg, where Henry lived with her, and had several children by her. The spot is still shown where one of the brothers of Eva was killed when he came in search of her.

HENRY III., king of France, the third son of Henry II. and Catharine of Medici, was born in 1551, at Fontainebleau. The death of his elder brother, Charles IX., in 1574, left the throne vacant, and Henry was crowned at Rheims, February 12, 1575. While duke of Anjou, he distinguished himself against the Huguenots; and the victories of Jarnac and Montcontour gave him so much reputation, that the Poles, in 1573, elected him their king. When his brother's death called him to the throne of France, the Poles were unwilling to part with him, and Henry fled secretly from a country which would gladly have retained him, to take the sceptre of another, of which the greatest part of the inhabitants hated him. In Vienna and Venice, which Henry visited on his journey to Paris, he was advised to reconcile the contending parties of the Catholics and Huguenots by mild measures, and thus spare his country the horrors of a civil war. Unhappily, the weak and voluptuous

prince did not follow this judicious advice, but gave himself up to the intrigues of his mother, Catharine of Medici, which involved France in a ruinous civil contest. Shut up in his palace, the victor of Jarnac and Montcontour exhibited only the melancholy spectacle of a miserable prince, who had forgotten all his duties, and while parties were raging around him, occupied himself with debauchery and intrigues. His marriage with the daughter of the count Vaudemont, of the house of Lorraine, afforded new matter for dissensions, by giving the generally hated Guises greater influence at court. Now began the civil wars in which Henry of Navarre (afterwards king Henry IV.) obtained so much glory. (See *Henry IV., Guise* (Henry), *Condé*, and the *League.)* The weak instrument of the dissensions of his courtiers, of his mother and his mistresses, Henry took no personal share in the subsequent events; and while the reputation of this king was continually sinking in the eyes of the people, and even in those of his own adherents, the confusion became greater. The duke of Guise came with troops to Paris, contrary to the express command of the king; and, when the latter made a feeble attempt to resist this usurpation, and to calm the rebellious citizens, his troops were driven away by the populace (May 12, 1588, called *La Journée des Barricades*), and he himself was compelled to flee to Chartres. Too weak and too cowardly to resist his enemies openly, he had recourse to artifice and assassination. At a meeting of the states-general at Blois (October, 1588), where he was apparently reconciled to the Guises, and where he partook of the eucharist with the duke, he ordered their murder. Henry of Guise was assassinated December 23, while on his way to the royal cabinet, and his brother, the cardinal, was murdered the next day in prison. This murder decided the fate of Henry. Paris and several of the principal cities of the kingdom formally declared against him. Henry III. now saw no other remedy than a union with Henry of Navarre. The two princes besieged the capital, which was defended by the duke of Mayenne (brother of Henry of Guise, and at that time the head of the league). Seventy-one doctors of the Sorbonne there declared the war against Henry of Valois (for so they called the king) justifiable. The pope promised the support of the church, and in Paris the murder of the tyrant was publicly preached. Henry was stabbed Aug. 1, 1589, in the camp at St Cloud, by a Dominican (James Clement by name), a raving fanatic, and died the next day, in the sixteenth year of his reign and the thirty-ninth of his age. His mother died in January of the same year. The first of the Bourbons, Henry IV., succeeded the last of the Valois. This prince restored peace to the kingdom, after a bloody religious and civil war of thirty years' duration; but that system of falsehood, intrigue, and moral corruption, which was introduced by the administration of Catharine of Medici and her three sons, Francis II., Charles IX., and Henry III., into the French court, afterwards brought many evils upon the country.—See Davila's *Istoria delle Guerre Civili di Francia*, 1559—1598 (History of the Civil Wars of France from 1559 till 1598), (Paris, 1644, in 4 volumes), and Charles Lacretelle's *History of France during the Religious Wars* (Paris, 1814, 5 volumes).

HENRY IV. of France, son of Anthony of Bourbon, duke of Vendome, and of Jeanne d'Albert, daughter of Henry, king of Navarre. He was born 1553, at Pau, in Béarn (department of the Lower Pyrenees). In accordance with the wishes of his maternal grandfather, he received an education well suited to the time in which he lived. He was inured to every hardship, early accustomed to knightly exercises, and his mind was trained for the labours of his after life. On the death of her husband, his mother left the French court, where she could not be secure from the intrigues of Catharine of Medici; she retired to Béarn, her hereditary principality, and there publicly declared herself in favour of the Huguenots. When the prince was eleven years old, he was compelled to appear in person at the court. The Guises had formed a plot with Philip II. of Spain, to conquer Lower Navarre, the inheritance of Henry, and to deliver him to the Spanish tyrant. But the penetrating Elisabeth of England discovered and frustrated the whole design. Before the young prince was sixteen years old, his heroic mother placed him at the head of the Huguenot army, which was beaten in the engagement at Jarnac, in 1568. The youth now pledged himself for the defence of his religion and of freedom of conscience, to the last drop of his blood. The forces under the command of the admiral de Coligny, animated by this act, proclaimed the young Henry generalissimo; and, notwithstanding a new defeat at Montcontour, the Huguenots concluded an advantageous peace at St Germain-en-Laye. Henry then travelled through his own kingdom, became acquainted with the wants of his subjects, saw their grievances, and resolved to exert all his powers to mitigate them. A mind heroic and noble, a temper elevated above little offences and revenge, a gentle and sympathising heart, with a strong inclination for the fair sex, and an ardent though tractable temperament, marked the early character of the hero, which gradually acquired a firm and resolute tone in the school of misfortune. The horrid plan of exterminating the Huguenots in France at a single blow, was already conceived by the bloody Catharine, and her weak son, king Charles IX., was persuaded to consent to it. For this purpose, it was necessary that the chiefs of the Huguenot party should be assembled at Paris. Under the pretence of uniting both parties, a marriage was proposed to queen Jeanne, between Henry and Margaret of Valois, youngest sister of Charles IX. While preparations were making for the marriage festival, Henry's mother died at Paris, not without strong suspicions of poison. Henry now assumed the title of *king of Navarre*. His marriage took place Aug. 18, 1572. Then followed the horrible scenes of St Bartholomew's, August 24. (See *Bartholomew's Day.)* Henry and Condé were obliged to make profession of the Catholic faith to save their lives; but Catharine of Medici endeavoured to dissolve the marriage just celebrated. As she was unsuccessful in this, she adopted the plan of corrupting the noble youth by the pleasures of a licentious court; and Henry did not escape the snare. In 1576, however, he took advantage of a hunting excursion to escape from the court. He now put himself anew at the head of the Huguenots, and professed himself again of the protestant church. Catharine, who, after the decease of Charles IX., administered the government in the name of his successor, Henry III., now thought it advisable to conclude a treaty of peace with the Huguenots (1576), securing to them religious freedom. Exasperated by this event, the jealous Catholics, in 1585, formed the celebrated league, which the king was obliged to confirm, and at the head of which was Henry, duke of Guise. Soon after, the religious war was again kindled with renewed violence. In 1587, Henry, with an inferior force, defeated the army of the league at Coutras. To the latter Henry III. had now become an object of suspicion; and, at the assembly of the states-general at Blois, in 1588, the Guises used every effort to destroy the royal power. The Sorbonne absolved the subjects of Henry III. from their allegiance, and pope Sixtus V. threatened

to excommunicate the king. The misguided monarch had now no hope but in a reconciliation with Henry of Navarre. After they had united at Tours, they obtained the ascendency over the league, and Henry III. marched to Paris, but he was assassinated in the camp at St Cloud; and his last commands to the assembled nobility were that they should acknowledge Henry of Navarre as his lawful successor to the throne of France. Meanwhile Henry IV. found innumerable difficulties in establishing his claims. His Protestant religion was brought forward by all the competitors to prejudice the Catholics against him. At the head of the opposite party stood the duke de Mayenne. Philip II. of Spain also claimed the French throne, and sent aid to the league. Henry IV. first defeated his enemies in the memorable battle of Arques, and completed their overthrow in the celebrated engagement of Ivri. In consequence of this victory, Paris was besieged, and Henry IV. was upon the point of compelling the fanatical citizens to surrender by famine, when the Spanish general Alexander, duke of Parma, by a skilful manœuvre, obliged him to raise the blockade. Convinced that he should never enjoy quiet possession of the French throne without professing the Catholic faith, Henry at length yielded to the wishes of his friends, was instructed in the doctrines of the Roman church, and professed the Catholic faith, July 25th, 1593, in the church of St Denys. He happily escaped an attempt to assassinate him; was solemnly anointed king at Chartres, in 1594; and entered the capital amid the acclamations of the people. The Spanish troops were compelled to a disgraceful retreat. After Henry had been acknowledged by the pope, all parties in France were reconciled. To humble the pride and break the power of Spain, Henry concluded an offensive alliance with England and Holland. The war against Spain was concluded in 1598, by the peace of Vervins, to the advantage of France. Henry made use of the tranquillity which followed, to restore the internal prosperity of his kingdom, and particularly the wasted finances. In this design he was so successful, with the aid of his prime minister Sully, that 330 millions of the national debt were paid, and forty millions laid up in the treasury. At the instance of Sully, Henry dissolved his marriage with Margaret of Valois; the pope confirmed the divorce, and the king soon after married Maria de' Medici, niece of the grand duke of Tuscany. But the crafty, domineering, and ambitious Maria so imbittered the life of Henry by her constant jealousy, that he resolved more than once to dissolve his union with her; Sully, however, prevented him. The birth of an heir (Louis XIII.) for a while reconciled him with his wife. But other troubles afflicted him, particularly the conspiracy of his former friend and companion in arms, marshal Biron, whom he would gladly have saved; but whom repeated acts of disobedience obliged him to surrender to the hand of the executioner. No less painful to the king were the conspiracies of the count of Auvergne, of the marshal de Bouillon, and his mistress, the artful d'Entragues. It became necessary to inflict punishments, though mercy would have been more congenial with his feelings. To his former brothers in faith, the Protestants, Henry granted entire religious freedom and political security, by the edict of Nantes, in 1598. (See *Huguenots*.) To humble Spain and Austria (against whom the Protestants in Germany had sought his aid), he conceived a perhaps impracticable plan of a great confederacy, and an entire alteration in the arrangement of the European states; the consequence of which was to be a perpetual peace. He made preparations to carry it into execution, and was on the point of entering upon a campaign. During his absence, Maria, his wife, was to be regent; and he therefore caused her to be crowned at St Denys, in 1610. As Henry was riding through the streets of Paris, on the following day, to examine the preparations for the solemn entrance of the queen, his coach was obstructed in the street de la Feronnerie, by two wagons. A fanatic, named Ravaillac, took advantage of this moment to perpetrate a long-meditated deed; he mounted the step of the coach, plunged a long two-edged knife twice into the heart of Henry, and thus ended the career of the best king France ever had. (See *Ravaillac*.) By his first wife Henry had no heir; by Maria, two sons and three daughters. By his mistresses, Gabrielle d'Estrées, Henrietta de Balsac (the countess d'Entragues), Jacqueline (countess of Moret), and Charlotte of Essarts, he had several children. The benevolent mind of Henry, his paternal love to his subjects, his great achievements, his heart, always open to truth, though it exposed his own faults, have preserved his memory in the hearts of the nation; and his royal expression, "I wish that every peasant might have a fowl in his pot on Sundays," still lives in the mouths of the people, while his defects are charged to the dissoluteness of the age.—See *Memoirs and Correspondence of Duplessis-Mornay: being a history of the Reformation and of the Civil and Religious Wars in France, under the Reigns of Charles IX., Henry III., Henry IV., and Louis XIII., from the Year* 1571 *to* 1623 (*Mém. et Correspond. de Duplessis-Mornay, pour servir à l'Hist. de la Réformation et les Guerres Civiles et Religieuses en France, sous le Règne de Charles IX., Henry III., Henry IV., et Louis XIII., depuis l'An* 1571 *jusqu'en* 1623), (Paris, 1825, 15 vols.); *Secret Amours of Henry IV., from the Original Manuscripts of* 1632; *written by Jean François, Marquis of Montgendré; collected in France, in* 1815, *with Notes by Count Alb. von Pappenheim* (Nuremberg, 1824, 2 vols.).

HENRY I., king of England, surnamed *Beauclerc*, youngest son of William the Conqueror, was born in 1068. He was hunting with William Rufus, in the New Forest, when that prince received his mortal wound, in 1100. Henry instantly rode to London, and caused himself to be proclaimed king, to the prejudice of his brother Robert, then absent on the crusades. To reconcile the people to his usurpation, Henry issued a charter, containing concessions to public liberty, which, however, operated little in restraint of his own government. He also performed another popular act, by recalling Anselm, archbishop of Canterbury, whose authority was necessary to his projects of conciliating his English subjects, by marrying Matilda, daughter of Malcolm III., king of Scotland. This union strengthened his party, when his brother landed an army in 1101, with a view of asserting his claim to the crown. Actual hostilities were prevented by Anselm, who induced Robert to accept a pension; and it was agreed that the brothers should succeed to each other's dominions, in the event of death without issue. This treaty did not prevent Henry from invading Normandy, a short time after; and, in 1106, he took Robert prisoner, and reduced the whole duchy. A contest with the papal court, on the subject of investitures, ended in a compromise, by which he merely retained the right of temporal homage. His occupation of Normandy involved him in continual war, which was very oppressive to his English subjects; but, although William, son of Robert, escaped out of custody, and was assisted by the king of France, Henry maintained possession of the duchy. His public prosperity was, however, counterbalanced by several domestic misfortunes. One of these was the

ss. at sea, of his only son, William, who was rowned, in 1120, in returning from Normandy, together with his natural sister, whose cries recalled im to the sinking ship, after he had got clear from in the long-boat. Henry was never seen to smile fterwards. He had betrothed his only daughter, fatilda, to the emperor, Henry V., and when she ecame a widow, married her a second time to eoffry Plantagenet, son of the count of Anjou. le himself also married a second wife, Adelaide, aughter of the duke of Lorraine, by whom he ad no issue. He died in Normandy, of a sudden lness, occasioned by eating lampreys, in the sixty-eventh year of his age and thirty-sixth of his reign. Henry was a prince of great accomplishments, both f mind and person, and his ready elocution and proficiency in the literature of the period obtained him his urname. He was much attached to women, and ossessed all the Norman passion for the chase, hich produced so many rigorous game-laws.

HENRY II., king of England, the first of the line f the Plantagenets, born in Normandy, in 1132, was he son of Geoffry, count of Anjou, and the empress Matilda, daughter of Henry I. He early displayed an levated character, and was invested with the duchy f Normandy, by the consent of his mother, at the ge of sixteen. The year following, he succeeded is father in the possession of Anjou and Maine, nd, by a marriage with Eleanor of Guienne, just ivorced from Louis VII., king of France, on a uspicion of infidelity, annexed that province, with oicton, to his other dominions. Rendered thus otent, he determined to pursue his claim to the rown of England, against the usurpation of Stephen. is expedition for that purpose ended in a compromise, by which Stephen was to retain the crown luring his life, and Henry to succeed at his death, hich took place in 1154. The commencement of is reign was marked by the dismissal of the foreign ercenaries; and, although involved with his brother eoffry, who attempted to seize Anjou and Maine, nd in a temporary dispute with France, he reigned rosperously, till the memorable contest with Thomas Becket. Anxious to repress the usurpation of the lergy, Henry in 1164, summoned a general council f nobility and prelates, at Clarendon, which assemly passed the famous constitutions named from that lace. The consequences of the reluctant subscription of Becket to these articles, in the first instance, nd his subsequent conduct, have been already related in the life of Becket. A prince of less power nd policy than Henry, might have yielded to the torm which followed; but, although sufficiently ubmissive in the way of penance and expiation, he nly gave up the article in the constitutions of Clarendon, which forbade appeals to the court of Rome n ecclesiastical cases, and, even in that case, reserved the right of exacting sufficient security from all lergy who should leave the country in prosecution f such appeals. Before this matter was terminated, Henry, in 1172, armed with a bull of pope Adrian, hose authority to give away kingdoms, in this nstance, he did not dispute, undertook an expedition nto Ireland,—a great part of which, owing to the isputes of its native chieftains, had been reduced by ome private adventurers, conducted by Richard Strongbow, earl of Strigul. The king found little nore to do than to make a progress through the sland, to receive the submission of the Irish princes; nd, having left earl Richard in the post of seneschal f Ireland, he returned to England,—proceedings so mportant to the future destinies of both countries aving occupied only a few months. Being an ndulgent father, Henry had assigned to each of his our sons a provision out of his extensive territories. The eldest son, Henry, was not only declared heir to England, Normandy, Anjou, Maine and Touraine, but actually crowned in his father's life-time. On paying a visit to the court of his father-in-law, Louis, the prince was induced by the French monarch to demand of his father the immediate resignation either of the kingdom of England or of the dukedom of Normandy. This extraordinary request being refused, he withdrew from his father's court, and was openly supported in his claim by Louis. Henry's various gallantries, exemplified in the popular and not altogether unfounded legend of fair Rosamond, or Rosamond Clifford, also embroiled him with his queen, Eleanor, who excited her other sons, Richard and Geoffry, to make similar claims, and imitate the example of their elder brother. Many potent barons and nobles, in the respective provinces, were thus withdrawn from their allegiance, and Louis, king of France, William, king of Scotland, and other powers, lent spirit to the confederacy. A general invasion of Henry's dominions was in this way concerted, and began, in 1173, by an attack on the frontiers of Normandy, where he opposed the storm with vigour. In the mean time, the flame had broken out in England, which was overrun with malcontents, while the king of Scots made an incursion into the north. Henry, in consequence, hastened home, and, to conciliate the clergy, passed a day and night of penance at the tomb of Becket. His absolution was followed by the news of a complete victory, gained by his general, the justiciary Glanville, over the Scots, in which their king was made prisoner. The spirit of the English malcontents being thus broken, they rapidly submitted; and Henry, returning to Normandy, entered into an accommodation with his sons, on less favourable terms than they had previously rejected; nor did the king of Scotland gain his liberty but by stipulating to do homage, and yield up some fortresses. The pause obtained by these exertions of vigour and ability, Henry employed in regulations and improvements which equally manifest his capacity and love of justice. He checked the prevailing licentiousness by severe laws, partitioned England into four judiciary districts, and appointed itinerant justices, to make regular excursions through them. He revived trial by jury, discouraged that by combat, and demolished all the newly-erected castles, as shelters of violence and anarchy. The turbulence of his sons still disquieted him; but Henry, the eldest, who had engaged in a new conspiracy, was cut off by a fever, in 1183, after expressing great contrition for his disobedience; and, two years after, the death of the equally restless Geoffry also released the king from newly meditated hostilities. Philip Augustus, then king of France, however, continued to foment the differences between Henry and his sons, and Richard was again prompted to rebel. A war between the two crowns followed, the event of which was so unfavourable to Henry, that he was at length obliged to agree that Richard should receive an oath of fealty from all his subjects, and marry Alice, sister of the French king, for whom Henry himself, under whose care she had long resided, is charged, and not without grounds, of having indulged an unbecoming, if not a criminal passion. He also stipulated to pay a sum of money to the French king, and to grant a pardon to all Richard's adherents. The mortification of Henry, at these humiliating terms, was aggravated to despair when he saw the name of his favourite son, John, at the head of the list of delinquents whom he was required to pardon; and, cursing the day of his birth, he pronounced a malediction upon his undutiful sons, which he could never be persuaded to retract. The anguish of his mind threw him into a low fever, which put an end to his life, at the castle of Chinon,

near Saumur, in the fifty-eighth year of his age, and thirty-fifth of his reign. Henry II. ranks among the greatest kings of England, not only in extent of dominion, but in all the qualities which give lustre to authority, being equally fitted for public life and for cultivated leisure. He was manly in person, gifted with ready elocution, and possessed warm affections. His wisdom and love of justice were acknowledged by foreign potentates, who made him arbiter of their differences, and regarded him as the first prince of the age.

HENRY III., king of England, surnamed *of Winchester*, son of John, was born in 1207, and succeeded his father, 1216. At the time of his accession, the country was in a state of lamentable distraction. The dauphin of France, Louis, at the head of a foreign army, supported by a faction of English nobles disgusted with the conduct and tyranny of John, had assumed the reins of government, but, being justly suspected of arbitrary intentions, was become odious to the body of the people. The cause of the young king, then only nine years of age, was espoused by the earl of Pembroke, whose prudent government, as regent, in a short time compelled Louis to sue for peace, and quit the country. As Henry approached to manhood, he displayed a character wholly unfit for his station. One of his first false steps was to discard his most faithful and able minister Hubert de Burgh, and give his entire confidence to rapacious and unprincipled foreigners,—an evil which was further augmented by his marriage, in 1236, with Eleanor of Provence. Many grievances were the consequence; and his foolish acceptance of the crown of Sicily, offered him by the pope, involved him in vast debts, which parliament refused to discharge. In his necessity, he had recourse to exactions, which increased the national discontent, and, finally, gave an opportunity to his brother-in-law, the ambitious Simon de Montfort, earl of Leicester, to make a total change in the constitution, and deprive him of royal authority. In 1258, conspiring with the principal barons, that earl appeared with them in arms at a parliament holden at Oxford, and obliged the king to sign a body of resolutions, which threw all the legislative and executive power into the hands of an aristocracy of twenty-four barons, assisted by a lower house, consisting of four knights, chosen from each county. The aristocracy, as usual, soon displayed a spirit which united both king and people against them, and the former was absolved by the pope from his oath to observe the provisions of Oxford. By the aid of his able and spirited son Edward, Henry was gradually restored to authority; on which Leicester, calling in Llewellyn, prince of Wales, involved the kingdom in a civil war. The power of the barons was by this means partially restored, but great divisions prevailing, both parties agreed to abide by the award of Louis IX., king of France. The award of this monarch, given in 1264, being favourable to the king, Leicester and the confederate barons refused to submit to it; and a battle was fought near Lewes, in which Henry and his brother Richard, king of the Romans, were taken prisoners, and the person of prince Edward also ultimately secured. A convention ensued, called *the Mise of Lewes*, which provided for the future settlement of the kingdom; but, in the mean time, Leicester ruled without control. To him, however, was owing the first example of a genuine house of commons in England; for, in a parliament summoned by him, in 1265, deputies from boroughs were sent, as well as knights of shires. Prince Edward at length escaped, and, assembling an army, defeated Leicester's son. The decisive battle of Evesham quickly followed, in which Leicester himself was slain; and the king, then in the hands of the rebels, being placed in the front of the battle, narrowly escaped with his life. Replaced upon the throne, he remained as insignificant as ever; and the departure of his son for the Holy Land was the signal for new commotions, which were, however, terminated by his death, in 1272, in the sixty-fourth year of his age and the fifty-sixth of his reign.

HENRY IV., king of England, surnamed *of Bolingbroke*, the first king of the house of Lancaster, was born in 1367, being the eldest son of John of Gaunt, duke of Lancaster, third son of Edward III., by the heiress of Edmund, earl of Lancaster, second son of Henry III. In the reign of Richard II. he was made earl of Derby and duke of Hereford, and, while bearing the latter title, appeared in the parliament of 1398, and preferred an accusation of treason against Mowbray, duke of Norfolk. The latter denied the charge, and offered to prove his innocence by single combat, which challenge being accepted, the king appointed the lists at Coventry; but, on the appearance of the two champions, at the appointed time and place, Richard would not suffer them to proceed. Both were banished the kingdom, Norfolk for life, and Hereford for ten years, shortened by favour to four, with the further privilege of immediately entering upon any inheritance which might accrue to him. On the death of John of Gaunt, in 1399, he succeeded to the dukedom of Lancaster, and laid claim, according to agreement, to the great estates attached to it; but the fickle and imprudent Richard recalled his letters patent, and retained possession of the estates; soon after which, he departed for Ireland. The duke, disregarding the unfinished term of his exile, embarked, in July, 1399, at Nantes; and, landing, with a small retinue, at Ravenspur, in Yorkshire, made oath, on his landing, that he only came for the recovery of his duchy. He was quickly joined by the earls of Northumberland and Westmoreland, the most potent barons of the north, and soon found himself at the head of 60,000 men. The duke of York, acting as guardian in the king's absence, was unable to oppose him; and, marching to Bristol, he took upon himself to execute some of the most odious of Richard's ministers, without trial. The latter, on the report of these transactions, landed at Milford Haven with an army, which soon melted away by desertion; and, falling into the hands of his enemies, he was brought to London by the duke, who now began openly to aim at the crown. A resignation was first obtained from Richard, who was then solemnly deposed in parliament. (See *Richard II.*) On this abdication, the right of succession was clearly in the house of Mortimer, descended from Lionel, duke of Clarence, the second son of Edward III.; but the duke of Lancaster claimed the crown for himself, as being lineally descended from Henry III., alluding to an idle report that his maternal grandfather, Edmund, earl of Lancaster, was really that king's eldest son, although set aside for his brother, Edward I. A sort of right of conquest was also set up, together with a plea of having delivered the nation from tyranny; and, though it was obvious that none of these claims would bear discussion, Henry was unanimously declared lawful king, under the title of Henry IV. The death of Richard soon removed a dangerous rival; yet a short time only elapsed before the turbulent nobles rebelled against the king of their own creation. The first plot, in 1400, was discovered in time to prevent its success, and many executions of men of rank followed. In order to ingratiate himself with the clergy, Henry promoted a law for committing to the flames persons convicted of the heresy of the Lollards. The Lollards, who, for a time, refused submission to Henry, were soon awed by an army; but an insurrection in

Wales, under Owen Glendower (see article *Glendower*), proved a more lasting source of disturbance. That chieftain, having captured Mortimer, earl of March, the lineal heir to the crown, Henry would not suffer his relation, the earl of Northumberland, to treat for his ransom. He thus offended that powerful nobleman; who, however, with his son, the famous Hotspur, subsequently served the king effectually against the Scots, whom they defeated at Homeldon, and captured their famous leader, the earl of Douglas. An order from Henry not to ransom that nobleman and the other Scottish prisoners, whom he wished to reserve as hostages, completed the disgust of the Percies; and the fiery temper of the younger Percy being especially roused by these indignities, he immediately set free his prisoner Douglas, after making an alliance with him, and marched, with all the partisans of his house, towards Wales, to join Glendower. The king met the insurgents at Shrewsbury, and a furious battle ensued, July 21, 1403, which ended in the death of Percy and the defeat of his party. The king, who fought in the foremost ranks, was several times in great danger, and his eldest son, afterwards the conqueror of France, here first distinguished himself. Henry was merciful in his instance. The earl of Northumberland, whom sickness had prevented from joining his son, was pardoned, and but few victims were executed. A new insurrection, headed by the earl of Nottingham and the archbishop of York, broke out in 1405, which was suppressed by the king's third son, prince John, who, by a pretended agreement, induced the leaders to disband their forces, and then apprehended them. The archbishop afforded the first example, in this kingdom, of a capital punishment inflicted upon a prelate, and the chief-justice, Sir William Gascoigne, deeming it unlawful, a less scrupulous judge supplied his place. Northumberland, who had once more conspired with the revolters, fled into Scotland with Lord Bardolf; and, in an attempt to raise a new rebellion, in 1407, both these leaders were slain at Bramham; and, the death of Glendower following soon after, Henry at length felt his crown sit firmly on his head. The casual capture, by sea, of James, son and heir to Robert, king of Scotland, added to his safety on the side of Scotland; and, although he had not the generosity to release the young prince, he had him admirably educated, and thereby laid the foundation of the distinction which he afterwards obtained, as a reformer of the laws and manners of his country. The continual disquiet of his life brought him, while yet in his prime, into a declining condition; and repeated fits, which rendered nugatory a resolution of taking the cross, and visiting the Holy Land, brought on his dissolution, March 20, 1413, in the forty-sixth year of his age and 13th of his reign. He had four sons and two daughters. Henry IV. showed himself capable of reigning, possessing courage, vigilance, prudence, and great command of temper. The necessity under which he lay of courting popularity, rendered his reign beneficial to the nation, and particularly favourable to the rights of the commons.

HENRY V., king of England, called, after his birth-place, *of Monmouth*, was born in 1388, and succeeded his father, Henry IV., in 1413. His dissipated youth, and fondness for joviality and low company, gave his father much uneasiness; but circumstances occurred, even in the midst of his wildness, which showed that better principles were latent in his mind. His conduct, when he ascended the throne, justified the best expectations. He caused the obsequies of the unhappy Richard to be performed with great solemnity, and was studious to obliterate every party distinction. He had the magnanimity to treat with confidence and kindness his superior in hereditary title, the earl of March, who repaid his advances with undeviating fidelity. It is to be regretted that his other good qualities were sullied by a rigid execution of the laws against the Lollards, the severity of which proceedings produced a real or alleged conspiracy against his person and government. The circumstances of France, torn asunder by the opposing factions of the dukes of Orleans and Burgundy, afforded a tempting opportunity to an ambitious neighbour. Henry was easily induced to revive the claims of his predecessors upon that country. He accordingly assembled a great fleet and army at Southampton, and was on the point of embarkation, when discovery was made of a dangerous conspiracy against his person, headed by the earl of Cambridge, who had married a sister of the earl of March, and sought to assert the rights of that family. The conspirators were capitally punished, after an irregular trial; and the king, delaying no longer, landed near Harfleur, August 14, 1415. He took that town, after a siege, which so much reduced his army that he determined to return to England; and, finding a great force assembled to oppose him, he offered to resign his conquests for an unmolested retreat. The French rejected the proposal, and were totally defeated in the plain of Agincourt (q. v.), October 25, 1415. Henry did not alter his determination to return home, and the dread of his arms was the chief advantage which he reaped from his victory. A peace taking place for two years, France was left to her own dissensions; until, at length, in 1417, the liberal grants of the commons enabled Henry once more to invade Normandy with 25,000 men. To an application for peace, he made a reply, which showed that he sought nothing less than the crown of France; but, in a negotiation with queen Isabella, he offered to accept the provinces ceded to Edward III. by the treaty of Bretigni. The negotiation was broken off by the assassination of the duke of Burgundy, which induced his successor to join Henry. This alliance was soon followed by the famous treaty of Troyes, made with the French king in a state of imbecility, or, rather with his queen and the Burgundian faction. By this treaty, Henry engaged to marry the princess Catharine, and to leave Charles in possession of the crown, on condition that it should go to Henry and his heirs at his decease, and be inseparably united to the crown of England. Henry, after espousing Catharine, took possession of Paris, and then went over to England, to raise recruits for his army. He returned to France, in 1421, and pursued the dauphin with so much vigour as to drive him beyond the Loire. A son was at this time born to him, and all his great projects seemed in full progress to success, when he was attacked by a fistula, which carried him off, in August, 1422, at the age of thirty-four, and in the tenth year of his reign. Henry V., as the gallant, youthful, and successful conqueror of France, is a favourite name in English history; but he was inferior, in wisdom and solid policy, to many of his ancestors. His reign was consumed in ambitious pursuits, which, while they inflicted great misery on France, entailed much misfortune upon his own country.

HENRY VI., king of England, born at Windsor in 1421. As he was an infant not nine months old at the death of his father, Henry V., the kingdom was placed under the protectorship of his uncle, the duke of Bedford. The infant Henry was solemnly invested with the crown of France, by ambassadors sent for that purpose, and crowned at Paris in 1430, when only nine years of age. The defection of the duke of Burgundy, and the death of the duke of Bedford, were severe blows to the English interest in France. A truce with France, in 1433, was followed

by the marriage of Henry with the celebrated Margaret of Anjou, daughter of Regnier, titular sovereign of Sicily and other kingdoms, without the actual possession of a single province. A renewal of hostilities with France, deprived the English of Normandy, and of every other possession in that country, except Calais. In the unpopularity of the court, people now began to look to the claim of Richard, duke of York, whose mother, heiress of the house of Mortimer, transmitted to him the best title to the crown by inheritance. The insurrection of Cade followed, and the duke of York returning from Ireland, a great party was formed in his favour, headed by some of the principal nobility. He was thereby enabled to remove his enemies from the king's person, and was, by parliament, declared protector of the kingdom, the imbecile Henry being, by this time, unable even to personate majesty. The York and Lancaster parties were now in such a state, that the sword only could decide between them; and that course of civil contention commenced, the first bloodshed in which occurred at St Albans, in May, 1455, and, as far as the reign of Henry was concerned, the last in the battle of Tewkesbury, in 1471. When the latter took place, the king was a prisoner in the Tower, where he soon after died; but whether by a natural or violent death is uncertain, although popular opinion assigned it to the violence of Richard, duke of Gloucester. Henry was gentle, pious, and well-intentioned, but too weak to act for himself. Eton college reveres Henry as its founder, as does likewise King's college, Cambridge.

HENRY VII., king of England, first sovereign of the race of Tudor, was born in 1457. He was the son of Edmund, earl of Richmond, son of Owen Tudor and Catharine of France, widow of Henry V. His mother, Margaret, was the only child of John, duke of Somerset, grandson of John of Gaunt. After the battle of Tewkesbury, he was carried by his uncle, the earl of Pembroke, to Brittany, to seek refuge, in that court, from the jealousy of the victorious house of York. On the usurpation of Richard, the young earl of Richmond was naturally adverted to as the representative of the house of Lancaster. In 1485, Richmond assembled a body of troops in Brittany, and landed at Milford Haven, with no more than 2000 hired foreign adventurers. He was immediately joined by some leaders of rank, but had only 6000 men when Richard met him at Bosworth, with an army twice as numerous in appearance; but the defection of lord Stanley with his forces, who joined Richmond during the battle, obtained for the latter a complete victory. Henry was proclaimed king on the field of battle, although it is not clear upon what ground; for had the title of the house of Lancaster been superior to that of York, the Somerset branch of it was originally illegitimate, not to mention that the claim of his mother, on this principle, was anterior to his own. Henry resolved, however, to stand upon this ground, and the recognition of his right by parliament; and his coronation was made to precede his marriage with Elisabeth of York, eldest daughter of Edward IV. That marriage, however, took place in 1486; but Henry, jealous of his authority, and strongly imbued with party prejudice, was a stern and ungracious husband, and regarded the Yorkists in general with great aversion. He gave his confidence, indeed, chiefly to Morton and Fox, both of the priesthood, and men of business and capacity, from whom he expected more obsequiousness than from the nobility. Discontent, on this and other accounts, soon arose, and an insurrection took place, headed by lord Lovel and the Staffords, which was soon suppressed. The imposture of Lambert Simnel, who, by the contrivance of Simon, a priest, was made to personate the earl of Warwick, son to the duke of Clarence, whom Henry kept confined in the Tower, followed. But Henry having publicly shown the true earl of Warwick in the streets of London, little credit was given to the impostor, and the king, collecting an army, met the rebels at Stoke, in Nottinghamshire, and totally defeated them. Henry spared the impostor Simnel, and displayed his insignificance, by making him a scullion in his kitchen. The project of France for annexing the province of Brittany, by marriage with the heiress, induced Henry to declare war; but his measures were so tardy and parsimonious, that the annexation was effected. He then raised large sums on the plea of the necessity for hostilities, and having a numerous army at Calais, in 1492, almost immediately accepted a large compensation for peace. The duchess dowager of Burgundy, governess of the Low Countries, had encouraged the imposture of Simnel, and now brought forward Perkin Warbeck, said to be the son of a converted Jew at Tournay, and a youth of parts and prepossessing figure. This young man gave himself out to be Richard Plantagenet, the younger of the two sons of Edward IV., supposed to have been murdered in the Tower of London, but one of whom, he alleged, had escaped. The duchess pretended to be satisfied with the proofs of his identity, and acknowledged him as her nephew. The circumstances of his progress in England need not be detailed here, any more than his confession of imposture, and execution by the halter. Soon after, the king fixed an indelible stain on his memory, by the execution of the simple and innocent earl of Warwick, for merely attempting to regain that liberty, of which he ought never to have been deprived. Firmly settled upon the throne, Henry now gained a high character among his brother monarchs, many of whom sought his friendship and alliance; and among these was Ferdinand, king of Arragon, a prince, in crafty and cautious policy, very much like himself. After a long negotiation, he brought about a match between the Infanta Catharine, daughter of this sovereign and of Isabella of Castile, and his eldest son Arthur; and on the death of the latter, in order to retain the dowry of this princess, he caused his remaining son, Henry, to marry the widow, by papal dispensation, an event which, in the sequel, led to a separation from the see of Rome. He married his eldest daughter to James IV. king of Scotland, foreseeing the unity of sovereignty that would probably arise from it, and never omitted his favourite pursuit of filling his coffers, employing Empson and Dudley (q. v.), who practised all sorts of extortion and chicanery for this end. He, however, made some good use of this treasure, by the advance of sums of money to merchants, without interest, to enable them to carry on lucrative enterprises, and promote an extension of commerce. He employed Sebastian Cabot who, under his auspices, discovered Newfoundland and part of the American continent. In the midst of these, and further projects of national and family aggrandisement, a decline of health began to impress him with uneasy thoughts of another world, which he endeavoured to appease by alms and religious foundations, and, as his end approached, even directed restitution to some of the parties oppressed by the exactions of Empson and Dudley. He died at his palace of Richmond, in April, 1509, in the twenty-fourth year of his reign, and fifty-second of his age. The reign of Henry VII. was, upon the whole, beneficial to his country. Being conducted upon pacific principles, it put a period to many disorders, and gave an opportunity to the nation to flourish by its internal resources. His policy of depressing the feudal nobility, which proportionably exalted the

middle ranks, was highly salutary; and it was especially advanced by the statute which allowed the breaking of entails, and the alienation of landed estates. Many other beneficial provisions also date from this reign, which, however, was very arbitrary; and the power lost by the aristocracy for a time gave an undue preponderance to that of the crown.

HENRY VIII., king of England, son of the preceding, was born in 1491, and succeeded his father in 1509. His education had been rather that of a scholar than of a prince; but a handsome person, and a frank and spirited manner, rendered him the object of popular attachment, especially as successor to a sovereign so little beloved as Henry VII. No prince could succeed to a throne under happier circumstances, possessing an undisputed title, a full treasury, and a kingdom flourishing in the bosom of peace. His disposition for show and magnificence soon squandered the hoards of his predecessor; and his vanity and unsuspicious openness of character made him an early object of foreign artifice. He was prevailed upon by pope Julius II. and his father-in-law, Ferdinand, to join in a league formed against Louis XII. of France. Some campaigns in France followed, but the success of the English at the Battle of the Spurs, so called from the flight of the French, being succeeded by no adequate result, the taking of Tournay was the only fruit of this expensive expedition. Meantime, more splendid success attended the English arms at home. James IV., king of Scotland, having made an incursion with a numerous body of troops into England, was completely defeated, and slain, at the battle of Flodden-field. Henry, however, granted peace to the queen of Scotland, his sister, and established an influence which rendered his kingdom long secure on that side. Finding himself amused by his allies, he soon after made peace with France, retaining Tournay, and receiving a large sum of money. The aggrandisement of Wolsey now began to give a leading feature to the conduct of Henry. The neglect of Wolsey by Francis I., produced hostilities from the emperor Maximilian, assisted by English gold; and when Charles V. succeeded to the Spanish crown, Francis found it expedient to gain Wolsey, who, in consequence, induced his master to resign Tournay, and enter into an amicable correspondence with Francis. In order to cement this new friendship, the two monarchs had an interview near Calais, the magnificence of which gave the place of meeting the denomination of the *field of the cloth of gold*. Notwithstanding these indications, a prospect of the papacy being artfully held out to the cardinal by the young emperor Charles, his interest at length gained a preponderancy in the English councils. The principles of the reformation, propagated by Luther, were now making rapid strides, and Henry himself wrote a Latin book against the tenets of Luther, which he presented to pope Leo X., who favoured him, in return, with the title of *defender of the faith*. Luther published a reply, in which he treats his opponent with little ceremony. Charles V. paid a visit to England in 1522, and induced Wolsey and Henry to declare war against France, which was again invaded by an English and Flemish army, under the earl of Surrey. The defeat and capture of Francis, at the battle of Pavia, gave such a preponderancy to the power of the emperor, that the alarm produced thereby, added to a discovery, on the part of Wolsey, that Charles was only amusing him on the subject of the papacy, produced not only a peace with France, but a declaration of war against the emperor, which prepared the way for the most important event in Henry's reign—his divorce from Catharine of Arragon. (For the proceedings which terminated in the divorce from Catharine, the fall of Wolsey which they involved, with the subversion of the papal claims, see *Catharine of Arragon*, *Wolsey*, and *Great Britain*.) In 1532, the king ventured privately to marry Anne Boleyn, and, in the next year, an open avowal of the marriage followed. Henry was excommunicated by the pope, and proceeded to break off all allegiance to the Roman see, and to declare himself supreme head of the English church. Thus was effected the great revolution, by which, in ecclesiastical annals, this reign is so much distinguished. The birth of a daughter by the new queen, produced a bill for regulating the succession, which settled it on the issue of this marriage, and declared the king's daughter by Catharine illegitimate. But, although Henry discarded the authority of the Roman church, he adhered to its theological tenets. While, on the one hand, he executed bishop Fisher and Sir Thomas More, for refusing the oath of supremacy, he displayed an aversion to the principles of the reformers, and brought many of them to the stake. His temper also grew more stern and arbitrary as he advanced in years, and his reign, from this period, was that of a despot who sacrificed every obstacle to his capricious will. Finding that the monks and friars in England were the most direct advocates of the papal authority, and that they operated most influentially to create dissatisfaction among the people, he suppressed the monasteries by act of parliament, and thereby inflicted an incurable wound upon the Catholic religion in England. The revenues of these opulent establishments were granted to the crown, which, however, was not proportionably enriched, as Henry lavished many grants of land upon his courtiers, and, besides settling pensions upon the retained abbots, friars, and monks, erected six new bishoprics. Another step which promoted the reformation, was the translation of the Scriptures into the vernacular tongue. The fall of Anne Boleyn, was, however, unfavourable, for a time to the reformers. Henry married Jane Seymour; and the birth of prince Edward, in 1537, fulfilled his wish for a male heir, although his joy was abated by the death of the queen. It was not until 1538, that the dissolution of all the religious houses took place; and the peculiar indignation of Henry fell upon Thomas a Becket, as the oppugner of royal authority. He cited the saint into court, had him condemned as a traitor, his name expunged from the calendar, and his bones burnt to ashes. The fate of Lambert, a poor schoolmaster, who, being condemned for heresy, appealed to the king, was more deserving of compassion. Henry, seated on his throne, attended by the lords spiritual and temporal, interrogated him concerning the real presence, and undertook to refute his errors from the Scriptures and the schoolmen. Six bishops followed; and in conclusion, Lambert was asked whether he would recant or die. He chose death, and was executed with circumstances of unusual cruelty. Henry now resolved to marry again, and Cromwell, a favourer of the reformation, recommended Anne of Cleves. The marriage took place in 1540, and Henry created Cromwell earl of Essex; but his dislike to his new wife hastened the fall of that minister, who was condemned and executed upon a charge of treason. At the same time, Henry procured, from the convocation and parliament, a divorce from Anne of Cleves. He then married Catharine Howard, niece to the duke of Norfolk—a union which brought him more under the influence of the Catholic party; and a rigorous persecution of the Protestants followed. Papists who denied his supremacy were treated with equal severity. Henry now found that his new queen, of whom he was very fond, had proved false to his bed,

and, on further inquiry, her conduct before marriage was discovered to have been loose and criminal. The king burst into tears when informed of these facts, but his grief quickly turned into fury, and she was accused, and brought to the block in 1542. His obsequious parliament further gratified him, by an act, making it high treason for any woman whom the king might thereafter marry, to pass herself off for a virgin, if otherwise. The preference shown by the king's nephew, James V., to the French alliance, brought on a war with Scotland, in 1542, the principal event of which was the rout of the Scottish army at Solway Frith. A war with France followed, and the king passed over to Calais, in July, 1544, at the head of 30,000 troops, and, being joined by 14,000 men from the Low Countries, took Boulogne; but in the winter returned to England. The war lasted until 1546. Henry, in 1543, married his sixth wife, Catharine Parr, widow of lord Latimer, a lady of merit, secretly inclined to the reformation. This queen fell into great danger, through the intrigues of the Catholic party, but found means to avert the consequences. (See *Catharine Parr.*) Disease now so much aggravated the natural violence of Henry, that his oldest friends fell victims to his tyranny. The duke of Norfolk, his most trusted and successful general, and the accomplished earl of Surrey, his son, were committed to the Tower. The latter was tried for an alleged correspondence with cardinal Pole, and on an absurd accusation of treasonably quartering a portion of the royal arms, and executed. The duke of Norfolk was proceeded against by attainder, without trial or evidence; and so little was Henry's ferocity mitigated by his own approaching end, that nothing seemed so much to concern him as the fear that Norfolk might escape; which he did, by the decease of the king the day before that appointed for his execution. It was long before any one would venture to tell Henry of his approaching dissolution; but the communication was at length made by Sir Anthony Denny, and the king heard him with resignation. He desired that archbishop Cranmer might be sent for, but was speechless before he came, and could only, by a pressure of his hand, give a token of his dying faith. He expired January 28, 1547, in the thirty-eighth year of his reign, and the fifty-sixth of his age. As impressively depicted by the dying words of Wolsey, his chief characteristic was love of sway. This passion, which was at first compatible with generosity and feeling, at length produced an excess of pride, impatience, and intolerance, which extinguished the sentiments of humanity, and rendered him violent and sanguinary in the extreme. He made himself so much feared, that no English king had fewer checks to his power; and liberty and constitutional equipoise were out of the question during the whole of his reign, or, what is worse, the forms of them were rendered purely subservient to his passions. No hand less strong than his could have so suddenly snapped the chain which bound the nation to the papacy. The complete union of Wales with England, and the conversion of Ireland into a kingdom, date from the reign of Henry.

HENRY, prince of Prussia (Frederic Henry Louis), brother of Frederic II., was born at Berlin, 1726. (On the severe and absurd education which he received for fifteen years, till his father's death, see the articles *Frederic William I.*, and *Frederic II.*) In 1742, he served his first campaign as colonel in the army which entered Moravia, under the command of the king and of marshal Schwerin, and was present at the battle of Czaslau. In 1744, he defended, with obstinacy and success, the city of Tabor, in Bohemia, surrounded only by a single wall. He distinguished himself still more (June 4, 1745) in the battle of Strigau or Hohenfriedberg, where the Prussians, under their king, defeated the Austrian army, commanded by prince Charles of Lorraine, and began to develope those great improvements in military tactics, which afterwards procured them so much honour. After the peace of Dresden, Frederic II. invited the prince and his brother Ferdinand to Potsdam. Prince Henry devoted his leisure hours to study. With a glowing imagination, a penetrating and reflecting mind, a firm will, always directed by good purposes, and a happy memory, he made great progress in his studies. Notwithstanding his severer studies, he found time to cultivate music and painting. His residence at Potsdam, where Frederic had collected many of the men of his time distinguished for genius and boldness of thought, contributed essentially to give an independent and lofty tone to the character of the prince. In 1752, his brother married him to the princess Wilhelmine of Hesse-Cassel, and built a palace for him in Berlin. A few years after, the seven years' war broke out, and the prince now found an opportunity to apply the theories he had studied in peace. In the battle of Prague, the unshaken courage of Henry, his firmness and coolness, decided the success of this splendid day. In the battle of Rossbach, he received an honourable wound. After this victory, the king gave him the command of the army of Leipsic. Soon after, he placed him at the head of a second army. During the whole seven years' war, Henry distinguished himself. After the peace concluded at Hubertsburg, prince Henry hastened back to tranquillity. The castle of Rheinsberg became the seat of philosophy and the muses; but his confiding trust in unworthy men excited domestic broils, which destroyed his peace, and compelled him to separate from his wife. In 1771, he paid a visit to the empress Catharine, in Petersburg, where they deliberated respecting the division of Poland, to which he gained the consent of the king his brother. In the war of the Bavarian succession, the prince commanded an army, which marched to Dresden, in July, 1778, formed a league there with Saxony, and then attacked Bohemia. The want of provisions compelled him to retreat, and the peace at Teschen, in 1779, put an end to the war. In 1784, the prince went to Paris, under the pretence of visiting the most splendid court in Europe, but, in reality, to prepare a connexion which should put a stop to the aggrandisement of Austria. The irresolution of the cabinet of Versailles frustrated this plan; the prince returned, and every thing assumed a new aspect, in consequence of the death of the great king. Frederic William removed his uncle from public business, and prince Henry was about to return to France, but was prevented by the troubles in that country. He forgot the ingratitude of his nephew in the conversation of philosophers, artists, and men of learning. The war which Prussia undertook against France, was not approved of by the prince. Overcome by the infirmities of age, he awaited in tranquillity the end of a life devoted to the welfare of the state. He died at Rheinsberg, August 3, 1802. In 1809, there appeared at Paris a life of prince Henry (*Vie privée, polit. et milit. du Prince Henri de Pr. frère de Frederic II.*).

HENRY, Matthew, an English nonconformist divine, and author of Expositions on the Bible, was a native of Flintshire, and was born in 1662, received the early part of his education under his father, who was also a dissenting clergyman, and studied for some time at an academy established at Islington. With the view of studying law as a profession, he entered himself at Gray's Inn; but still he continued the study of the scriptures, and assiduously attended

the sermons of Stillingfleet and Tillotson. In 1686, having qualified himself for the ministry, he began to preach; and in the succeeding year he was settled as pastor to a congregation of dissenters at Chester, and continued with exemplary zeal and success to discharge the duties of his office for twenty-five years, when he was removed to Hackney in the vicinity of London, where his clerical labours were still more extended. He died of apoplexy in 1714, while on his return from a visit to his old congregation in Cheshire.

The works published by Mr Henry furnish sufficient proof of his learning and knowledge. He was an elegant and pathetic preacher, and he was not less distinguished by the warmth of his piety and the amiableness of his manners. Besides his greatest work, "Expositions on the Bible," in 5 vols. folio, of which four contain the Old Testament, and the fifth the Evangelists and the Acts of the Apostles, part of the exposition of the Epistle to the Romans being finished by Dr Evans, he was the author of a discourse on Schism, A Biographical Sketch of his Father, a Scripture Catechism, Family Hymns, and several other religious tracts.

HENRY, ROBERT, D.D., an English historian and Scottish divine, was a native of Stirlingshire, and was born in 1718, received the early part of his education at his native village St Ninians and at Stirling, and completed his studies at the university of Edinburgh. He was some time master of the grammar school at Annan; and being licensed to preach in 1746, he officiated for twelve years in a congregation of dissenters at Carlisle, from which, in 1760, he removed to Berwick-upon-Tweed, to become pastor of a similar congregation; and in 1768, through the influence of a near relative, he was appointed one of the ministers of Edinburgh. He died in 1790, when he had reached the seventy-third year of his age; and it is worthy of notice, that he made a bequest of his library to the magistrates of Linlithgow, in the vicinity of which he had long resided during the summer season, to be the foundation of a public library for the use of the inhabitants.

The "History of England upon a New Plan," it is understood, began to occupy his thoughts about the year 1763, and his removal to Edinburgh gave him many facilities for its accomplishment. The first volume appeared in 1771, and it excited a great deal of ill-natured criticism from a party of his countrymen, who used every exertion to detract from its merits. But he steadily continued in the prosecution of his design; and four other volumes were published at successive intervals, the last in 1785. He had prepared for the press a sixth volume, which brings down the history to the reign of Henry VIII., and which was published in 1793, with the author's life prefixed. The different periods embraced by Dr Henry's history of Great Britain are arranged under seven heads: 1. The civil and military history; 2. The history of religion; 3. The history of our constitution, government, laws, and courts of justice; 4. The history of learning, learned men, and seminaries of learning; 5. The history of arts; 6. The history of commerce, shipping, money or coin, and of the price of commodities; 7. The history of manners, customs, language, dress, and amusements. This elaborate work, which may be regarded as an authentic repository of historical information, was at first but coldly received, and indeed met with some unjust criticism, part of which was excited by private malignity. But it is worthy of notice, that the actual emolument which he derived from the labour of thirty years on his history amounted to £3300, beside an annual pension from government of £100, which he enjoyed for ten years.

HEPATITIS. See *Liver Complaint*.

HEPHÆSTION, the friend of Alexander the Great, was a noble Macedonian of Pella. He accompanied the king in his campaigns, and died at Ecbatana (B. C. 325.) Alexander, who was inconsolable for his death, intended to erect a monument to him, but died himself soon after.

HEPTACHORD (from the *Greek*); a term which with the ancients implied a conjunct tetrachord, or a system of seven sounds. It was also the name given to a lyre, or *cithara*, with seven chords. In the ancient poetry, the word *heptachord* signified certain verses that were sung to the sound of seven chords; that is, to seven different notes or tones. The interval of the *heptachord* was equivalent to our seventh.

HEPTAGON; a plain figure of seven sides or angles; it is said to be regular when all the sides or angles are equal. See *Polygon*.

HEPTARCHY; the seven kingdoms into which England was divided under the Saxons. It terminated in 827 or 828, when king Egbert united the seven kingdoms into one, and assumed the title of king of England. See *England*.

HEPTATEUCH; a name sometimes given to the five books of Moses, or Pentateuch, together with the books of Joshua and the Judges.

HERACLIDÆ; the descendants of Hercules, who, assisted by the Dorians, asserted the claims which they had inherited to the Peloponnesus by arms. Their attacks had already been twice repulsed, when, eighty years after the capture of Troy, they appeared a third time. But Aristodemus, one of their leaders, perished while making preparations for the expedition, and the greater part of the army was destroyed by famine. In their distress, they consulted the oracle of Delphi, and received the answer, that they should follow a three-eyed general, whom they found in the Ætolian Oxylus, riding on a mule with one eye. Conducted by him, they penetrated by several points into the Peloponnesus, conquered almost the whole peninsula, and distributed the country among their commanders. Temenus received Argos with Mycenæ and Sicyon; Cresphontes, Messenia; and the sons of Aristodemus, Procles and Eurysthenes, Lacedæmon, where they reigned in common. The recovery of the Peloponnesus by the Heraclidæ forms an important epoch in Grecian history.

HERACLITUS, a Greek philosopher, born at Ephesus, in Asia Minor, surnamed the *obscure*, flourished in the 69th Olympiad, about 500 B. C. Instead of accepting the highest official dignities in his native city, he devoted himself to philosophy. He travelled in different countries, particularly in Africa. His disposition, gloomy and melancholy by nature, as appears also in his philosophy, early impelled him to avoid all intercourse with men, on account of their vices. He repaired to solitary mountains, to live on roots and herbs, but, being attacked by a fatal disease, was obliged to return to the city, where he died soon afterwards, in his sixtieth year. He left a work on the nature of things, in which he treats also of religion and politics. It was written in an obscure and figurative style, and therefore excited but little attention, and was finally lost. From the little of his philosophy which has come down to us, it appears that he considered fire as the element of all things; probably understanding not the common fire, but an ethereal fiery substance; which supposition is reconcilable with the account that he considered the pure air, or vapour, to be the primitive element. From this originates the world, and it is in turn reproduced by the world. Every thing is in a constant state of change. The act of originating is separation from the primitive existence

and substance, and is founded on opposition, enmity; extinction is the solution into the primitive substance, is union, love. Both together form the harmony of the primitive substance, and operate according to the law of necessity. We think through the divine reason, which we draw in by breathing while we are awake. In reason alone is truth, that is, in the universal human reason. The soul after death passes over into the soul of the world.

HERALD. The etymology of this word is very uncertain. Some derive it from the German *Heer* (army), and *Ald* (a servant); Leibnits, from the Welsh *Herod* (a messenger), which, with the insertion of *l*, gives the German *Herold*. Others explain it by the German *Heer* and *alt* (in Low German, *old*), (one grown old in war), because the office of *herald*, at tournaments, was given to persons of this description. Other derivations have also been proposed. The origin of heralds is as ancient as that of priests. They are found among all nations, the *parlementaires* of the moderns being the same as the *heralds* of the ancients. Their persons are inviolable, otherwise they could not accomplish the object of their institution. The Romans had three sorts of heralds—the *caduceatores* (the same as the Grecian κηρυκες), heralds of peace; *feciales* (heralds of war and peace), and *præcones* (criers or messengers of the superior magistrates). The *caduceator* carried certain plants (*verbena*, as myrtle, olive branches, rosemary, &c.) in his hand, as a symbol of his office, and for his security. Among the Grecians, he carried a wand of laurel or olive (*caduceus*, q. v.). The Athenian herald carried a wand bound round with wool, and ornamented with various kinds of fruits (the ωρεσιων). He often united other employments with his office of herald, as that of cook and cupbearer. The Greek appellation κηρυκες was derived from *Ceryx* (son of Mercury and Pandrosos, daughter of Cecrops), from whom the Athenian heralds originated. The Spartan heralds must have been derived from *Talthybius*, the herald of Agamemnon, who was worshipped in a temple in Sparta. The *feciales*, forming a college of twenty members, established by Numa, had also a diplomatic character, as their department embraced every thing connected with the declaration of war and the making of treaties. If a war was determined upon, they solemnly proclaimed it. If Rome considered herself injured, a *fecialis* demanded satisfaction. If this demand was not complied with within thirty-three days, the *fecialis* went again to the hostile frontiers, threw a bloody spear, and declared war by a solemn formula *(clarigatio)*. As the frontiers of the Roman territory extended farther and farther from the capital, this ceremony was performed upon a field without the city *(ager hostilis)*. The *feciales* wore the sacred *verbena* as a wreath round their temples; and, if they were sent to conclude a treaty, they carried a flint. The *præcones* were employed to proclaim matters of public interest to the people, at religious ceremonies, in the *comitia*, at public sales, judicial trials, in the senate, on the publication of the laws (which they read), at funerals, at games, in the army (if a general wished to address his men), at executions, and at all public meetings. In the middle ages, indigent knights, grown old in battle, were appointed heralds. Their duty was to be arbiters at the tournaments, to pass judgment on coats of arms and the right of knighthood. The study of armories was therefore indispensable to them; hence the name *heraldry*. They were also the chroniclers of those times, and present on all occasions of public ceremony. In France, the first herald *(roi-d'armes)* was crowned and consecrated with religious ceremonies. There were thirty heralds of the realm; the second in rank was called *Montjoye St Denis*, from the war-cry of king Dagobert. The heralds were united in associations, and their duties formed a branch of science, which was communicated only to the members. If any person pretended to the character of a herald, who, on examination, was found not to belong to the corporation, he was driven away with insults, and sometimes treated with violence. Most of the European orders have their heralds, who are masters of ceremonies. There are three kings at arms in England. The highest is the garter king at arms (*garder principal*); the second for the southern provinces *(Clarencieux)*; the third for the northern provinces *(Norroy)*. These three kings at arms, with six subordinate heralds and four pursuivants, form, under the presidency of the earl marshal, duke of Norfolk, the herald's college or herald's office, established in 1340. *See the next article.*

HERALDRY. Arms may belong to individuals, to families, or to countries. Badges and emblems on shields and helms occurred in the earliest times. In Numbers (*chap.* i., 52), the children of Israel are enjoined to pitch their tents, "every man by his own camp, and every man by his own standard," with the ensigns of his father's house. The poets of the Greeks and Romans speak of paintings and devices on shields and helmets. These symbols were, moreover, hereditary. Thus Xenophon relates that the kings of the Medes bore a golden eagle on their shields. Suetonius asserts that Domitian had a golden beard for his coat of arms; and Tacitus says of the ancient Germans, that they marked their shields with brilliant colours, and that certain standards were borne before them in battle. Notwithstanding these traces of armorial bearings in the ancient world, our heraldry is no older than the tournaments. That armory first became common and regulated by certain rules at these solemn festivals, is corroborated by the following reasons. In the first place, we find no tomb or monument, with escutcheons, older than the eleventh century. The most ancient monument of this kind is said to be the bearings of a certain Varmond, count of Vasserbure, in the church of St Emmeran, at Ratisbon. The shield is *coupé* of argent and sable; over it is a lion, with the words "*Anno Domini MX.*" On most of the other tombs, even of the eleventh century, no arms are found; and the use of them seems to have first become common in the twelfth century. The first pope, who can be proved to have had a coat of arms, is Boniface VIII., who filled the papal see from 1294 to 1303. All the earlier papal arms are the fanciful inventions of later flatterers. On coins, also, no armorial ensigns are found till the thirteenth century. A second proof of our assumed origin of coats of arms is the word *blason*, which denotes the science of heraldry in French, English, Italian, and Spanish. This word has most probably its origin in the German word *blasen* (to blow the horn); for, whenever a new knight appeared at a tournament, the herald had to sound the trumpet, and, because all appeared with close visors, to proclaim and explain the bearing of the shield or coat of arms belonging to each. Because this was performed by the herald, this knowledge was called *heraldry*; and because, in doing so, he blew the trumpet, it was called *blazoning the arms*. That this was a prevailing practice at tournaments may be proved from the poetry of the Troubadours of the twelfth and thirteenth centuries. Hence it came, that those knights, whose right to appear at tournaments had already been announced by blazoning their arms, bore two trumpets on their crest. From the Germans, this custom was transmitted to the French; for there is no doubt, that tournaments were usual in Germany much earlier than in France.

But the French carried to far greater perfection the tournament, and the blason or heraldry connected with it, as they did the whole system of chivalry. Since, moreover, the French language prevailed at the court of the Norman kings in England, pure French expressions have been preserved in British heraldry. Thus the green tincture (colour), in a coat of arms, is termed *vert* (though in French *sinople*, which originally denoted a *reddish brown;* bright red is termed *gueules*, probably with an allusion to the bloody revenge of wild animals, which play so conspicuous a part in heraldry); the divided shield is, moreover, called *coupé;* and *passant, regardant, dormant, couchant*, &c., are used. German heraldry, on the contrary, contains almost pure German expressions. In a coat of arms, the helm is placed upon the shield, and the latter is surrounded by the wreath. At a tournament, the mantle of the knight, with the helm and shield, was suspended in the lists. The colours or tinctures of the shields had their foundation in the custom of the most ancient Germans, of giving their shields various colours—a custom which received a tender meaning in the tournaments of the middle ages, the knight, bound to defend the honour of dames, and devote himself to their protection, wearing their colours on his shield. By degrees, the partitions or sections on shields came into use; for when, as often occurred, a knight was the champion of several ladies, he bore several colours on his shield, which had therefore to be divided into fields. When the martial youth of almost all Europe left their homes, about the end of the eleventh century, inspired with religious enthusiasm, to conquer the Holy Land, the use of arms became still more general and necessary. In order to distinguish the nations, armies, and families, the princes and commanders chose their symbols, sometimes in commemoration of the exploits and events of the campaign, or of the dignity of the commander, and sometimes from mere fancy or passing humour.

The practical functions of the herald consist in blasoning, historifying, passing judgment on, and marshalling, coats of arms. Blasoning is the methodical description of a bearing. In the first place, the shield is described according to its tinctures, figures, and partitions. The inferior parts of an escutcheon are then blasoned,—the helm, with its insignia, which are trumpet, wings, and plumes, men and animals, or their members; then the wreath and its tinctures; after which the coronet, cap, &c.; finally the supporters, the mantle, the device, and other secondary things. To historify, in heraldry, is to explain the history of a coat of arms, its origin, and the changes it has undergone. If the herald is to explain a bearing historically, he must show that this figure is the proper emblem of the family or country. He derives, for instance, from historical sources, the proof that the double-headed eagle of the Roman king was first introduced in the beginning of the fourteenth century, under Albert I., and that previously, from the time of Otho II., the royal eagle had but one head; that the three leopards in the English arms were first derived in 1127, under Henry I., from the Norman house. The marshalling of arms consists in the preparation of new escutcheons. In this matter, the herald either follows the orders of a sovereign, or he invents the idea, and makes the plan of the escutcheon according to his own judgment, or he composes a new escutcheon from several coats of arms. In heraldic science, arms are distinguished by different names, to denote the causes of their being borne, such as *arms of dominion*, of *pretension*, of *concession*, of *community*, of *patronage*, of *family*, of *alliance*, of *succession*, of *assumption*. Those of *dominion* and *sovereignty* are those which emperors, kings and sovereign states constantly bear, being, as it were, annexed to the territories, kingdoms, and provinces they possess. Thus there are the arms of England, of France, &c. Arms of *pretension* are those of kingdoms, provinces, or territories, to which a prince or lord has some claim, and which he adds to his own, although such kingdoms or territories are possessed by another prince or lord. Arms of *concession*, or *augmentation of honour*, are entire arms, as the fortress of Gibraltar on the escutcheon of lord Heathfield. Arms of *community* belong to bishoprics, cities, companies, &c.; of *patronage*, to governors of provinces, lords of manors, &c. Arms of *family* are the property of individuals; and it is criminal in any persons not of the family to assume them. Arms of *alliance* show the union of families and individuals. Arms of *succession* are taken up by those who inherit certain estates, manors, &c., either by will, entail, or donation, and which they impale or quarter with their own. This multiplies the titles of some families from necessity, and not from ostentation. Arms of *assumption*, or *assumptive arms*, are taken up by the caprice or fancy of persons who assume them without a legal title. They are also such as a man of his proper right may assume, with the approbation of his sovereign and of the king of arms.

The parts of arms are the escutcheon, the tinctures, charges, and ornaments.

Escutcheon.—The escutcheon, or shield, represents the original shield used in war, and on which arms were anciently borne. The surface of the escutcheon is termed the *field*, because it contains those marks of honour which were formerly acquired in the field. The forms of the shield were of different kinds, namely, *triangular, notched and indented*, called a shield-chancre, *oval*, which is called a losenge, and used by females, and the square form, which is in ordinary use at present. The shield is likewise distinguished not only by the variety of its forms, but also of its position, some being borne erect and others pendant, some hanging by the right and others by the left corner. To the escutcheon belong points and abatements. The *points of the escutcheon* are certain points which are peculiarly distinguished for the location of the figures which the field contains. These points are distinguished by the first nine letters of the alphabet, as in fig. in plate 44, which are as follows: namely,

A B C, *the chief*, which represents the highest and most honourable part of the shield. A is the *dexter chief;* B, the *middle chief;* and C, the *sinister chief.*

D, *the collar*, or *honour* point, so called because eminent men wear badges of honour about their necks.

E, the *cœur*, or *heart*, otherwise called the centre or fesse point.

F, the *nombril*, or *navel* point.

G H I, the *base*, i. e. G, the *dexter base;* H, the *middle base;* and I, the *sinister base.* The French call the two first the *flanques*, and the last the base. The use of these points is to distinguish different coats of arms charged with the same figures; for arms having a lion *in chief* differ from those having a lion in *base;* and so on with the other points.

Abatements.—Abatements are certain marks of disgrace added to the coat armour of divers persons on sundry occasions, which have been distinguished by different names, as *delf, inescutcheon reversed, point-parted dexter, point in point, point champagne, plain point, gore, gusset*, and *escutcheon reversed;* but of all these abatements there is no example remaining except of the last.

Tinctures.—Tinctures, or armorial colours, are altogether nine, namely, two metals and seven colours,

which have been distinguished by different names, and made to represent certain planets, stones, and virtues, as set forth in the following table:

Colours.	Tinctures.	Precious Stones.	Planets.	Virtues.
Yellow	*Or*	Topaz	Sol	Faith
White	*Argent*	Pearl	Luna	Innocence
Blue	*Azure*	Sapphire	Jupiter	Loyalty
Red	*Gules*	Ruby	Mars	Magnanimity
Black	*Sable*	Diamond	Saturn	Prudence
Green	*Vert*	Emerald	Venus	Love
Purple	*Purpure*	Amethyst	Mercury	Temperance
Tenny	*Tenney*	Hyacinth	Dragon's Head	Joy
Blood-colour	*Sanguine*	Sardonyx	Dragon's Tail	Fortitude

The two first of the above tinctures are the metals, and the seven others the colours, of which the two last are not so frequently used in blason as the rest. When not given in their natural colours they are represented now in engraving by points and hatched lines, in the place of letters, which were formerly employed, as follow, namely—*Or*, Gold, distinguished by small spots, as in fig. 6, formerly by the letter O. *Argent*, Silver, a white colour, formerly marked by the letter A, now represented by leaving the space blank. *Azure*, Blue, formerly represented by the letter B, now by horisontal or thwart hatches. *Gules*, Red, formerly distinguished by the letter R, now by perpendicular hatched lines. *Sable*, i. e. Black, formerly marked by the letter S, now by cross hatches, perpendicular and horisontal lines. *Vert*, i. e. Green, formerly known by the letter V, now by thwart or diagonal hatches from right to left. *Purple*, formerly distinguished by the letter P, now by thwart or diagonal hatches from left to right.

Furrs.—Furrs are a sort of tincture which are composed of two or more tinctures, and are supposed to represent the skins of beasts that were employed for the furring, doubling, and lining of robes and garments of state; whence they have been transferred to the coat armours themselves. The two principal furrs are *ermine* and *vair*. *Ermine* is represented by a white field powdered, or semé, of black spots. When the field is black with white spots it is denominated *ermines*, to which may be added other varieties, as *erminois*, a field *or*, with black spots; *pean*, a black field with white spots, *or*, &c. *Vair* is always composed of argent and azure, represented by figures of small escutcheons, ranged in a line, so that the base argent is opposite to the base azure. When the bells or cups of the same colour are placed base against base and point against point, it is called *countervair*; and when the pieces of vair be of other tinctures, they are denominated *vairy*, as vairy of gules and *or*. To these two principal furrs may be added a third, called potent. *Potent*, otherwise called counterpotent, is a sort of furr, which derives its name from the resemblance which the figures bear to crutch-heads, called *potents*, counterplaced. See plate 44.

Lines.—Lines serve to divide the shield into different parts, and are denominated either crooked lines or partition lines. *Crooked lines* serve to difference bearings, and are distinguished into the Ingrailed, Invecked, Wavy, Nebulé, Imbattled, Raguly, Indented, Dancette, Dove-Tail; *ingrailed*, is a line consisting of semicircles with the points turned upwards; *invecked*, is a line of semicircles with the points turned downwards; *wavy*, a line formed after the manner of waves; *nebulé*, so called because it represents a cloud; *imbattled*, or *crenellé*, is the name of a line which represents the battlements of a castle; *raguly*, represents the trunk of a tree with its branches cut off; *indented*, represents the teeth of a saw; *dancette* differs from the former by having the teeth deeper; *dove-tail*, a line which resembles the dove-tail joints of the joiners.

Partition Lines.—Partition lines are such as divide the shield into two or more parts, which are distinguished into *party per pale*, when the field is divided by a perpendicular line; *party per fesse*, when the field is equally divided by a horisontal line; *party per bend*, a field divided by a diagonal line from the dexter chief to the sinister base; *party per chevron*, is a field divided by two half diagonal lines rising from the dexter and sinister base flanks, and meeting in the collar point of the field; *party per cross*, or quarterly, is when the field is divided by two lines, one perpendicular and one horisontal; *party per saltire*, is when the two partition lines, party per bend, dexter and sinister, meet in the centre of the field. See plate 44, for representations of all these.

Figures.—Figures are the next essential parts of armories, which are to be divided into Ordinaries, Charges, and Differences.

Ordinaries.—Ordinaries are figures so called because they are in ordinary use in this science. They are otherwise called *proper figures*, because they are proper to the heraldic art. They are distinguished into honourable ordinaries and sub-ordinaries, or less honourable ordinaries.

Honourable Ordinaries.—Honourable ordinaries, otherwise called simply *ordinaries*, are so named because they are often given by emperors, kings, and princes, as additions of honour to armorial bearings. They are nine in number, namely, the Chief, Pale, Bend, Bend Sinister, Fesse, Bar, Chevron, Cross, and Saltire. See plate 44.

Chief.—The chief is formed by a horisontal line, and contains in depth the third of the upper part of the field, "*argent* a chief *gules*." By one of the rules of blason, when a chief is in a coat of arms it is the last thing to be mentioned, except when it is surrounded with a bordure. When the chief is charged with any figure, this is said in blason to be *on a chief*; but when natural and artificial things are placed in the upper part of the shield, in the place of the chief, they are said to be *in chief*. The chief is formed of crooked as well as straight lines, and is therefore distinguished into the *chief crenellé*, *chief dancette*, &c.

Pale.—The pale occupies the third middle part of the field perpendicularly. The pale is charged with things which are said to be *on a pale*; and when things are borne perpendicularly one above another in the centre of the shield, they are said to be in *pale*. The pale has two diminutives, namely, the *pallet*, which is the half of the pale; and the *endorse*, which is the fourth of the pallet; and when the field is divided into four or more even parts, by perpendicular lines of two different tinctures interchangeably disposed, it is said to be *paly* of so many pieces.

Bend.—The bend is an ordinary drawn diagonally from the dexter chief to the sinister base, in the form of a belt, and occupies the third of the field. A bend is said to *surmount* when it lies over other ordinaries or other figures, keeping its just length or breadth, and things are said to be on *a bend* when the bend is charged with them; *in bend*, and *bendways*, when they are situated after the manner of a bend. The bend is said to be subject to all the accidental forms of lines, and has three diminutives, namely, the *cotter*, which is half the bend; the *cost*, or *cottise*, which is half the garter; and the *ribbon*, which is half the cost. When the field contains more than one bend they are not called bends, but *bendlets*, or more generally *bendy*, of so many pieces; and when opposed to one another in metal and colour, they are said to be *counter-changed*.

Bend Sinister.—The Bend Sinister, which is the *bar* of the French, is the same in form as the bend or the *bend dexter*, but it is drawn across the field from the sinister chief to the dexter base. The bend sinister is divided into the *scarpe*, or *scarfe*, which contains the half of the bend, and the *batune*, which is a fourth

part of the bend sinister. This is borne *couped*, and is vulgarly known by the name of the *bend of bastardy*, because it is the mark of illegitimacy.

Fesse.—The Fesse is an honourable ordinary which occupies the third middle of the field. The fesse is said to *surmount* another figure when it lies over it, and in the same manner to be *surmounted* by it; but when the supercharge is comprehended within the limits of the fesse, it is said to be a fesse charged, or to be *on a fesse*. When the fesse is placed higher than the centre, it is said to be *transposed*; and when below the centre, it is *abaissé*.

Bar.—The Bar is an honourable ordinary which is formed after the manner of a fesse, but occupies only a fifth of the field, and is not confined to any particular part of the field, except when there is only one bar, when it is put in the place of a fesse. Bars are mostly two in a field, sometimes three and more. When the field is filled with bars they are said to be *barry*, as "Barry of four, six pieces *argent* and *azure*, &c." When small figures are ranged horisontally above or below the middle of the shield they are then said to be *in bar*, or *barways*; and when the bar does not touch the sides of the shield it is said to be *couped*. The diminutives of the bar are the *closet*, which is the half of the bar, and the *barulet*, which is the half of the closet: when these diminutives are placed two and two in a shield, they are called *bars gemel*. The bar is sometimes subject to the accidental forms of lines, as *imbattled*, *ingrailed*, &c.

Chevron.—The Chevron is an honourable ordinary, made of the bend dexter and sinister, issuing from the right and left base points of the escutcheon, meeting and ending pyramidically in the collar point. It occupies, according to the French, a third of the field; but according to the English, the fifth. The chevron is subject to very many accidental forms, for it is *accompanied with*, or *charged with*, other figures, and is also *imbattled*. The diminutives of the chevron are the *chevronel*, which is the half, and the *couple close*, which is the fourth of its breadth. When the field is filled with pieces of equal number in the form of chevrons, it is said to be *chevrony* of so many pieces. as chevrony of six, *argent* and *gules*, &c.

Cross.—The Cross is composed of the pale and the fesse, which meet in the centre. After the introduction of the cross into the military ensigns of the crusaders, its use became very frequent, and its form was in consequence more varied than that of any other ordinary.

Saltire.—The Saltire, or Sautoir, is an honourable ordinary, composed of the bend dexter and sinister, which is supposed to represent the cross on which the apostle St Andrew suffered. It is subject to the accidental forms of the lines, as ingrailed, wavy, &c. When the saltire is between four figures it is said to be *cantoned*. When figures are borne on the saltire it is said to be *charged*, or they are said to be *on a saltire*. Figures are also borne *saltirewise*, or *in saltire*.

The *Sub-ordinaries* are the Bordure, the Orle, the Tressure, the Inescutcheon, the Canton, the Quarter, the Billet, the Gyron, the pile, the Flanche, the Lozenge, the Fusil, the Rustre, the Mascle, the Fret, the Roundle, and the Gutte. See plate 44, for a few of these.

Bordure.—A Bordure goes round the extremities of the shield, and takes up mostly the fifth part of the field, but sometimes more and sometimes less. The bordure is subject to all the different forms of lines belonging to the other ordinaries, as *ingrailed*, *wrecked*, &c., and is also charged with different figures, from which it derives the name of *entoire*, when charged with inanimate things; *verdoy*, when charged with vegetables; *enurey*, for a charge of beasts; and *enaluron*, for that of birds. Bordures are also said to be componé, or gobonate, and chécky. A *bordure componé* is that which is filled with one rank of square pieces. When there are two ranks of pieces it is called *counter-componé*; and when there are three or more, *chécky*.

Orle.—The Orle is an inner bordure which does not touch the extremities of the shield. The *orle* is properly a diminutive of the bordure.

Tressure.—The Tressure, or in French *Treschur*, is a diminutive of the orle, and consists of a trace or tract flowered, surrounding the inner part of the escutcheon as an orle. When there are two of these tracts flowered and counterflowered, within and without, it is called a *double tressure*.

Inescutcheon.—The Inescutcheon represents the military shield, and occupies the fifth middle of the escutcheon. It is subject to the different accidental forms of other ordinaries.

Canton.—The Canton is a square figure possessing a third part of the chief, which is used as an additament of honour, and in particular as a Baronet's mark. The canton is frequently charged with other figures.

Quarter.—The quarter is a square figure larger than the canton. This is called by the French *franc quartier*.

Billets.—Billets are oblong square figures which are supposed to represent billets, or letters missive. The proper position of the billets is erect, but when in fesse, or fesseways, they are said to be *couché*; and, when diagonally placed, they are said to be *bendways*; and, when they are placed after the manner of a crosspall, which is called by the French *pairle*, they are then said to be *en pairle*. When the field is charged with more than ten billets irregularly, it is said to be *billety*, or *semé of billets*.

Gyron.—An ordinary of two lines drawn from the side of the shield, meeting in the centre, or top; if these two lines are extended to the other side of the shield they form two girons. When the field is divided into six or more parts of different tinctures, all the points uniting in the centre of the field, it is called *gyronny*. The Gyrons are also subject to the accidental forms of lines, as ingrailed, nebule, &c.

Pile.—The Pile is an ordinary consisting of a two-fold line formed after the manner of a wedge. It is subject to the accidental forms of other ordinaries.

Flanche.—The Flanche is an ordinary made by an arch line that swells towards the centre, and is always borne in couples. The *flasque* and the *voider*, two varieties of this ordinary, are said to be less in breadth.

Lozenge.—The Lozenge is a rhomboidal figure that has equal sides, and unequal angles. The shield in which maids and widows bear their arms is of this form. When the field is filled with lozenges, it is said to be *lozengy*.

Fusil.—The Fusil is rhomboidal like the lozenge, but longer than it is broad. When the field is filled with fusils, it is called *fusilly*.

Rustre.—The Rustre is a lozenge pierced round in the middle so that the field appears through.

Mascle.—The Mascle is also a lozenge voided of the field, but in a square form instead of a round one.

Fret.—The Fret is a figure which resembles two sticks lying saltirewise, and interlaced, within a mascle. It is sometimes called the *true lover's knot*. *Fretty*, or *fretted*, is said of any figures that are placed in the form of a fret.

Roundle.—The Roundle is an ordinary in the form of a ball, which receives different names in English heraldry, according to the tincture, as follow:

If they be *Or*,	they are called	*Bezants.*
..... *Argent*,	.....	*Plates.*
..... *Gules*,	.....	*Torteauxes.*
..... *Azure*,	.....	*Hurts.*
..... *Sable*,	.....	*Pellets.*
..... *Vert*,	.....	*Pomeys.*
..... *Purpure*,	.....	*Golpes.*
..... *Tenne*,	.....	*Oranges.*
..... *Sanguine*,	.....	*Guzes.*

Bezants represent pieces of gold, or silver, in coat armour. *Torteauxes* are supposed to represent *wastels*, or cakes of bread. *Rings* and *annulets* were marks of nobility among the Romans, and became the prises of tournaments and jousts; whence they were naturally transferred to coat armour; and, when these annulets, or great rings, are borne one within another, they are termed, by the French, *vires*.

Guttees.—Guttees are figures which represent drops; and, like the roundles, they vary in their names according to the tincture, as follow:

If they be *Or*,	they are called	*Guttees d'or.*
..... *Argent*,	.....	*Guttees d'eau.*
..... *Gules*,	.....	*Guttees de sang.*
..... *Azure*,	.....	*Guttees de larmes.*
..... *Sable*,	.....	*Guttees de poix.*
..... *Vert*,	.....	*Guttees d'olive.*

Charges are the figures of natural and artificial things, which are called *common charges*, because they are common to other sciences as well as heraldry. Animals are blasoned, as to their posture and actions, as follow: *rampant*, as a lion rampant, (see plate 45,) when he is erect standing on one of his hind legs; *sejant*, or *sitting*, as a lion sejant; *couchant*, i. e., lying at rest, with the head erect; *passant*, in a walking position; *gardant*, looking full-faced; *rampant gardant*, erect and looking full-faced; *rampant regardant*, erect and looking behind; *saliant*, in a leaping posture; *tripping* is said of the stag, as in plate 45; *courant*, of the stag, and other animals, running; *at gaze*, of the stag when he looks full-faced; *lodged*, of the stag when at rest on the ground; *volant*, of birds in general in a flying posture; *rising*, of a bird that is preparing to fly; *hauriant*, of fishes when erect paleways; *naiant*, swimming of fishes. To these may be added other blasons of animals generally, as *dormant*, for a sleeping posture; *addorsed*, for two animals back to back; *nowed*, i. e., knotted like a serpent; *counter-passant*, for two animals walking different ways; so *counter-saliant*, *counter-tripping*, &c. The teeth and claws of lions, and other ravenous beasts, are called their *arms;* and, when they are of a different tincture, they are said to be *armed;* and, if their tongue be of a different tincture, they are said to be *langued*. Tame animals, as the ox, ram, &c., which are furnished with horns and hoofs different from their bodies, are said to be *armed*, *unguled*, or *hoofed*, of such and such a tincture; but deer are said to be *attired* on account of their antlers. Dogs, in respect to their kind, are blasoned *beating*, *coursing*, *scenting*, &c. The beaks and talons of birds of prey are termed their *arms;* whence they are said to be *armed* and *membered;* and tame birds, on the contrary, are said to be *beaked* and *membered:* but the cock is said to be *armed*, *crested*, and *jellopped*, i. e., *armed*, for his beak and spurs; *crested*, on account of his comb; and *jellopped*, on account of his wattles. The falcon is generally borne the same as the eagle, and blasoned in the same terms, except when he has a hood, bells, virols, or rings, and leashes, in which case he is said to be *hooded*, *belled*, *jessed*, and *leashed;* when in the act of striking his prey, he is said to be *pouncing*. When the heads of animals are borne they are said to be *couped*, if cut evenly off; or *couped close*, if cut close; *caboshed*, when the head is cut off close behind the ears; and *trunked*, in particular, of bulls' heads; *erased*, if the head seem to be violently torn from the body. When the whole foreleg of a lion, or other beast, is borne in arms, it is termed a *jamb;* and, if couped, or erased, near the middle joint, it is a *paw*. When the arm of a man is borne, it is either *erect*, when couped at the elbow; or *embowed*, when it forms an elbow; *dexter* for the right arm, and *sinister* for the left. The temples of a man are said to be *wreathed* when decorated with laurel, oak, ivy, &c. As to his whole dress, a man is said to be *naked*, or *habited*, *rustre*, in *armour*, or in mail. Animals in general are said to be *crined*, which have the hair of a different tincture; sometimes they are said to be *dismembered*, when they are cut in pieces, but not so as altogether to destroy the form; and *debruised*, when a bend, or any ordinary, is placed over them. The wings of birds are said to be *displayed*, when their wings are expanded; *close*, when they sit close to the body; *indorsed*, when they sit back to back; *erect*, when the points of the wings are upwards; *inverted*, when the position is reversed, or the points downwards. Fishes are said to be *finned*, if the fins are of a particular tincture. Of heavenly bodies, the sun is said to be *in his meridian*, or *his glory*, or *in an eclipse*, &c.; the moon *crescent*, *increscent*, or *decrescent;* a comet, *streaming*, &c. Of vegetables, the tree is said to be *fructed*, if bearing fruit; *acorned*, if bearing acorns; *raguled* and *trunked*, when its limbs are cut off, leaving only the stumps; *eradicated*, when torn up by the roots; *blasted*, *withered*, &c.; a branch is said to be *slipped* leaved, &c.; leaves and flowers are said to be *pendant*, or *erect*, &c. The sheaves of corn are termed *garbs*. If any thing seems to be proceeding from another, it is termed *issuant*, as "An arm *embowed issuant;*" an arrow is said to be *barbed* and *feathered;* a castle is said to be *towered;* a key, *endorsed:* colours, *disvelopped;* a weapon, *imbrued*, that is bloody; a horse, *furnished*, when bridled, saddled, and completely caparisoned. When the field is divided into four quarters, it is said to be *quarterly* when they have each their charges; these are said to be *on the first*, i. e., on the field of the first quarter; *on the second*, i. e., the field of the second; and, when there are several metals, or tinctures, *of the first*, it is said to denote the first mentioned; and *of the last*, to signify the last mentioned.

Exterior ornaments of the Escutcheon.—The exterior ornaments of the escutcheon are the helmet, mantling, crest, escroll, wreath, motto, supporters, cap of dignity and crown, which are denominated by the general name of *timbres*, from the Teutonic *timber*, signifying a top or summit; whence to *timber* the arms is to adorn them with helmet, mantle, crest, &c.

Helmet.—The helmet, which is placed on the top of the escutcheon, varies both in form and the materials of which it is made. Those of sovereign princes are of gold, those of the nobility of silver, and those of gentlemen of polished steel. The *full-faced helmet*, with six bars, as in plate 45, is for the king and princes of the blood; the side-long helmet, with five bars, is for dukes and marquises, &c. The *full-faced helmet of steel*, with its beaver or visor open, is for knights; and the *side-long helmet*, with the visor shut, for the esquire.

Mantling.—The mantling, or mantle, was anciently fixed to the helmet, to which it served as a covering. Mantlings are now used like cloaks, to cover the whole achievement. The mantle in blason is said to be *doubled*, i. e., lined throughout with some of the favours above-named. The common tincture, or colour of these, both for nobility and gentlemen, is gules, but the King's is cloth of gold

Crest.—The crest, or cognisance, is placed upon ıe most eminent parts of the helmet, but yet so as ı admit the interposition of the mantle, wreath, &c. *rests* were anciently worn in the field in order to stinguish the wearers from others by means of their llowers, who were in the habit of wearing their aders' crest. As appendages to the crest are the— *Vreath*, which serves as a support; it is composed two colours wreathed or twisted together; and the *scroll*, which was formerly in great estimation as a pport to the crest.

Motto.—The motto, word, or saying, consists of the ord or phrase which gentlemen carry in a scroll ider or above their arms.

Supporters.—Supporters were originally only ıcient devices or badges, which by custom came to nbellish armorial ensigns. They are called *supıorters* because they hold the shield; and if they be the figures of angels, or human beings, they are lled by the French *tenents*.

Cap of Dignity.—The Cap of Dignity, otherwise lled a Ducal Cap, is a head tire which dukes and ommanders were accustomed to wear in token of cellency. This cap must be of a scarlet colour, id turned up with ermine.

Crowns and Coronets.—Crowns are worn only by vereign princes, in distinction from coronets, which e worn by nobility, and are inferior to the former, th in size and richness. A comparative view of ıe crown, coronets, &c., worn in England is given ı plate 45.

HERAULT DE SECHELLES, Marie Jean, adocate-general in the parliament of Paris, and after the volution, royal commissary, member of the tribunal f cassation, deputy from the department of Paris to ıe legislative assembly, and, at length, a member the national convention, was born at Paris, in 1760. e conducted himself before the revolution as an pright and able magistrate. At the sessions of the gislative assembly, he presented several reports, parcularly relative to the responsibility of ministers. In uly, 1792, he joined in the declaration that the couny was in danger; and he subsequently advocated ndictive measures against the royalists. He presided ı the national assembly in September, and, becomg a member of the convention, he warmly engaged ı the schemes of the revolutionary party. About this me, he was charged with the management of some egotiations with foreign powers, but they proved unccessful. He was then sent on a mission to Alsace, nd, at Colmar, he ran great risk of being assassinatd in a popular insurrection. In November, 1792, he as again employed as a commissioner from the conention to the army in the department of Mont Blanc, nd he was thus absent from Paris during the trial f the king. He, however, in conjunction with his olleagues, Jagot and Simond, wrote a letter to the onvention, charging Louis XVI. with an uninterupted series of treasons, and recommending his ondemnation, without mentioning the punishment to e inflicted. But he chiefly distinguished himself in ıe contest between the Mountain and Gironde parties, nd he powerfully co-operated in the destruction of ıe latter. He was also a member of the committee f public safety. But all his services to the terrorists id not save him from the scaffold. He was denounced, March 17, 1794, for having, as he was accused, oncealed an emigrant, and as belonging to the ction of Danton, with whom he was executed on ıe 5th of April following. He displayed great ourage, or rather levity of conduct, in his last ıoments, bidding adieu to his companions with as nuch *sang-froid* as if he had been going to a party of leasure.

HERBARIUM, or HORTUS SICCUS; a dry garden; an appellation given to a collection of specimens of plants, carefully dried and preserved. The value of such a collection is very evident, since a thousand minutiæ may be preserved in the well-dried specimens of plants, which the most accurate engraver would have omitted. Specimens ought to be collected when dry, and carried home in a tin box. Plants may be dried by pressing in a box of sand, or with a hot smoothing iron. Each of these has its advantages. If pressure be employed, a botanical press may be procured. The press is made of two smooth boards of hard wood, eighteen inches long, twelve broad, and two thick. Screws must be fixed in each corner with nuts. If a press cannot easily be had, books may be employed. Next, some quires of unsized blotting paper must be provided. The specimens, when taken out of the tin box, must be carefully spread on a piece of pasteboard, covered with a single sheet of the paper, quite dry; then three or four sheets of the same paper, must be placed above the plant, to imbibe the moisture as it is pressed out. It is then to be put into the press. As many plants as the press will hold may be piled up in this manner. At first, they ought to be pressed gently. After being pressed for about twenty-four hours, the plants ought to be examined, that any leaves or petals which have been folded may be spread out, and dry sheets of paper laid over them. They may now be replaced in the press, and a greater degree of pressure applied. The press ought to stand near a fire, or in the sunshine. After remaining two days in this situation, they should be again examined, and dry sheets of paper laid over them. The pressure then ought to be considerably increased. After remaining three days longer in the press, the plants may be taken out, and such as are sufficiently dry may be put in a dry sheet of writing paper. Those plants which are succulent may require more pressure, and the blotting paper to be again renewed. Plants which dry very quickly ought to be pressed with considerable force when first put into the press; and, if delicate, the blotting paper should be changed every day. When the stem is woody, it may be thinned with a knife, and, if the flower be thick or globular, as the thistle, one side of it may be cut away, as all that is necessary, in a specimen, is to preserve the character of the class, order, genus, and species. Plants may be dried in a box of sand in a more expeditious manner; and this method preserves the colour of some plants better. The specimens, after being pressed for ten or twelve hours, must be laid within a sheet of blotting paper. The box must contain an inch deep of fine dry sand on which the sheet is to be placed, and then covered with sand an inch thick; another sheet may then be deposited in the same manner, and so on, till the box be full. The box must be placed near a fire for two or three days. Then the sand must be carefully removed, and the plants examined. If not sufficiently dried, they may again be replaced in the same manner for a day or two. In drying plants with a hot smoothing iron, they must be placed within several sheets of blotting paper, and ironed till they become sufficiently dry. This method answers best for drying succulent and mucilaginous plants. When properly dried, the specimens should be placed in sheets of writing paper, and may be slightly fastened by making the top and bottom of the stalk pass through a slip of the paper, cut for the purpose. The name of the genus and species should be written down, the place where it was found, nature of the soil, and the season of the year. These specimens may be collected into general orders and classes, and titled and preserved in a portfolio or cabinet. The method of preserving many of the cryptogamous plants is more difficult, on account

of the greater quantity of moisture which they contain, and the greater delicacy of their texture.

HERBELOT, Bartholomew d'; a celebrated Orientalist, born of a good family, at Paris, in 1625. After having gone through a course of study in the university of his native city, he applied himself particularly to the Eastern languages, with a view to the elucidation of the Hebrew Scriptures. He visited Italy for improvement, and formed an acquaintance, at Rome, with Lucas Holstenius and Leo Allatius, two of the most learned men of the age. He was patronised by cardinal Grimaldi, who, in 1656, sent him to Marseilles to meet Christina, queen of Sweden, then on her way to Rome; and that princess was much pleased with his society. On his return to France, the minister of state, Foucquet, received him into his family, and gave him a pension of 1500 livres. On the disgrace of his patron, D'Herbelot was fortunate enough to escape the general ruin which involved the dependants of the fallen statesman, and his merit procured him the office of Oriental interpreter to the king of France. After some years, he again travelled into Italy. At Leghorn, he was introduced to the grand-duke of Tuscany, Ferdinand II., who invited him to Florence, where he arrived in July, 1666. He was magnificently entertained by the duke, and was also gratified with a present of a valuable collection of Eastern manuscripts. While in Italy, he commenced his great work, the Oriental Library; and, being recalled to Paris by Colbert, a pension was given him, that he might be at liberty to proceed with his undertaking. It was his first design to have published his collection in the Arabic language, and types were cast for the purpose of printing it. But the death of Colbert having interrupted this plan, he recomposed his work in the French language, as likely to prove more generally useful. On the recommendation of the chancellor, M. de Pontchartrain, he was afterwards appointed to the royal professorship of Syriac, vacant by the death of M. d'Auvergne. He died at Paris, December 8, 1695. His book was published in 1697, under the title of *La Bibliothèque Orientale* (folio). Besides this, he left a collection on the same subject, entitled *Anthologia*, and a dictionary in the Turkish, Persian, Arabic, and Latin languages, neither of which has been printed. The best edition of the Oriental Library is that of the Hague, (1777, four volumes, 4to), with the Supplements of Galland and Visdelou.

HERBERTSTEIN, Sigismund, baron of, a distinguished politician and historiographer, was born in 1486, at Vippach, in Carniola. He studied law, but afterwards became a soldier, and fought against the Turks. The emperor of Germany intrusted him with important missions. In 1516, he was sent to Christian II., king of Denmark, to induce him to give up his foolish and unhappy passion for Dyveke. Soon after his return, he was sent to Russia, and, at a later period, to Constantinople. In fact, he travelled over almost all Europe. He was made privy-counsellor and president of the college of finances. In 1553, he retired from public life, and died in 1566. His name has been handed down to posterity by a work which is still highly esteemed—*Rerum Moscoviticarum Commentarii, quibus Russiæ ac Metropolis ejus Moscoviæ Descriptio, chorographicæ Tabulæ, Religionis Indicatio, Modus excipiendi et tractandi Oratores, Itineraria in Moscoviam duo et alia quædam continentur*. It has been often published and translated. The writers on Russia call it the best of the early works on that country. An autobiography of Herbertstein, to the year 1545, remained unpublished till 1805, when it appeared at Buda, in the collection of Kovachich. From this Adelung chiefly took his biography of Herberstein, Petersburg, 1818.

HERBERT, Edward, lord Herbert of Cherbury, in Shropshire, was born at Montgomery castle, in Wales, in 1581. At the age of twelve, he was entered as a gentleman commoner at University college, Oxford. In 1600, he went to London, and, shortly after the accession of James I. became a knight of the Bath, having previously married the heiress of Sir William Herbert, another branch of the family. He then visited the continent, carrying with him those chivalrous ideas with which the oath and ceremonies of the investiture of the order of the Bath seem to have impressed him. He returned to England in 1607, and, in 1609, quitted it again, in order to join the English forces serving in aid of the prince of Orange, at the siege of Juliers, where he distinguished himself by his rash and romantic bravery. On the conclusion of the siege, he returned to London, where he was one of the most conspicuous characters of the period. His gallantry towards a court lady, which, however, he asserts to have been without criminality, produced an attempt by her husband to assassinate him in the streets of London, which he foiled by an extraordinary effort of courage and dexterity. In 1614, he served again in the Low Countries, under the prince of Orange, and, in 1616, was sent ambassador to the court of France, where he resented some high language on the part of the constable Luynes, the favourite of Louis XIII., with so much spirit, that a complaint was sent to the English court, which produced his recall. He cleared himself, however, so well to king James, that, on the death of Luynes, he was sent back to France as resident ambassador. At Paris, in 1624, he printed his famous book, *De Veritate prout distinguitur a Revelatione*, the object of which was to assert the sufficiency, universality, and perfection of natural religion, with a view to prove the uselessness of revelation. An incident which he has mentioned as occurring previously to its publication, affords a remarkable proof of the power of imagination over an enthusiastic mind. Being in his chamber, doubtful as to the propriety of publishing his book, on one fair day in summer, his casement opened to the south, the sun shining clear, and no wind stirring, "I took," says he, "my book *De Veritate* in my hand, and, kneeling devoutly on my knees, said these words—'O thou eternal God, author of the light which now shines upon me, and giver of all inward illuminations, I do beseech thee, of thy infinite goodness, to pardon a greater request than a sinner ought to make. I am not satisfied enough whether I shall publish this book *De Veritate*. If it be for thy glory, I beseech thee give me some sign from heaven; if not, I shall suppress it.' I had no sooner spoken these words, but a loud, though yet gentle noise came from the heavens (for it was like nothing on earth), which did so comfort and cheer me, that I took my petition as granted, and that I had the sign demanded." He makes the most solemn assertions of the truth of this narrative, and there is no reason to doubt that he fully believed it—an extraordinary instance of vanity and self-delusion in one whose chief argument against revealed religion is founded on the improbability that Heaven would communicate its will to a part of the world only. In 1625, he returned from France, and was created an Irish peer, and afterwards an English baron, by the title of *lord Herbert of Cherbury*. Little more is heard of him in public life, except that he joined the parliamentary party in the first instance, but subsequently quitted it, and was a great sufferer in his fortune in consequence. He died in London, 164[illegible]. The character of lord Herbert is strongly marked in

is memoirs, which show him to be vain, punctilious, nd fanciful, but open, generous, brave, and disinerested. The *De Veritate* was followed by a work ntitled *De Religione Gentilium, Errorumque apud os Causis* (or an Inquiry into those Causes which nisled the Priests and Sages of Antiquity). Soon fter his death, was published his Life and Reign of Henry VIII., which is rather a panegyric on that rince, than a fair representation. The English tyle of lord Herbert is strong, manly, and free from he quaint pedantry of the age. A collection of his oems, published by his son, in 1665, displays little oetical merit. His entertaining memoirs, written y himself, remained in manuscript until first printed y lord Orford, at Strawberry-hill, in 1764.

HERBERT, George, younger brother of the subect of the last article, was born at Montgomery astle, April 3, 1593, and received his education t Westminster school, and Trinity college, Camridge. His talents attracted the notice of James ., but the death of his majesty, in 1625, put an end o his prospects of promotion, and, in conjunction vith other motives, induced him to take orders n the church of England. In 1630, he took priest's rders, and was presented to the rectory of Bemerton, near Salisbury, in Wiltshire. He died in 1633. His friend, Nicholas Ferrar, published, from Herbert's manuscript, The Temple; sacred Poems and private Ejaculations (Cambridge, 1663). The poetry of Herbert, in common with that of Donne and Cowley, is deformed by point and antithesis, and obscured by metaphysical allusion; but some of his minor pieces, in spite of their defects, are extremely beautiful, and may be said to bear the stamp of genius. His life, by Isaac Walton, has been often published.

HERCULANEUM, or HERCULANUM, a city, 11,000 paces distant from Naples, was so completely buried by a stream of lava and a shower of ashes, in an eruption of mount Vesuvius, during the reign of Titus, A. D. 79, that the site of the city was no longer visible. The neighbouring Pompeii, on the river Sarno, one of the most populous and commercial cities of this coast, and Stabiæ, which stood on the site of the modern Gragnano, together with Oplontis and Teglanum, experienced the same fate. Earlier excavations were already forgotten, when three female statues (now in the Dresden museum) were found in digging a well, by the direction of prince Elbeuf, at Portici, a village situated on the spot of the ancient Herculaneum. After this discovery, farther excavation was prohibited by the government, and nothing more was thought of the matter till Charles, king of Spain, father of Ferdinand IV., having taken possession of the conquered Naples, chose Portici for his spring residence. Now (1738) the well was dug deeper, and traces of buildings were found. The theatre of Herculaneum was the first discovery. It is to be regretted that the ignorance of the superintendent, the Spanish engineer, Rocco Gioachino Alcubierre, was the cause of the loss of many fine remains. A Swiss engineer, Charles Weber, having received the superintendence of the work, a better method was adopted, and to this intelligent man, who was succeeded by the equally skilful La Vega, we are indebted for the arrangements which were afterwards made. In 1750, Stabiæ and Pompeii were explored. The latter place, being covered with ashes rather than lava, was more easily examined. Here were discovered the extensive ruins of an amphitheatre. In the cellar of a villa, twenty-seven female skeletons were found near a door, and the impression of the breast of one of these unfortunate persons in a once soft and subsequently hardened mass of ashes. Ornaments for the neck and arms were lying around. Here, also, near the lower door of a villa, were found two skeletons, one of which held a key in one hand, and, in the other, a bag with coins and cameos. Near them were silver and bronze vessels. It was supposed that one was the master and the other the slave, and that they were suffocated, under the mass of ashes, while endeavouring to find the passage out. It is probable, however, that most of the inhabitants of this city had time to save themselves by flight. For the antiquary and archæologist, antiquity seems here to revive, and awakens sensations which Schiller has so beautifully described in the poem Pompeii and Herculaneum. The ancient streets and buildings are again thrown open, and in them we see, as it were, the domestic life of the ancients. We had never before had such an opportunity of becoming acquainted with the disposition of the houses of the ancients, and with their utensils. These discoveries are especially important to literature and art, since a great treasure of manuscripts and works of art has been found.

In 1759, 1696 papyrus rolls were discovered in a villa of the ancient Herculaneum. The expectations of the learned world from these literary treasures have not yet been fulfilled, since the work of examining the manuscripts has been carried on very slowly; but still it is of some importance that we have become better acquainted with the material of the ancient manuscripts, and perhaps the difficult business of unrolling these remains of ancient times will at length be rewarded with the discovery of some work of importance. The rolls were of a cylindrical form, and so much charred as to have the appearance of tobacco rolls. Antonio Piaggio invented a simple, but ingenious machine, to unroll the manuscripts, previously strengthened by goldbeater's skin, by means of silk threads attached to their exterior edge. The uses of this machine were, however, very limited; and various other experiments on the manuscripts, which were for the most part not only reduced to a coal, but almost entirely dissolved by the moisture which had penetrated them, afforded no satisfactory results. According to an examination instituted by Sir Humphrey Davy, in Naples, in 1819, 407 of the 1696 rolls had been unrolled, of which only 88 were found legible; 24 had been sent as presents to foreign princes, and, of the remaining 1265, only from 80 to 120 were in a state which promised any chance of success, according to the chemical method invented by him. (See *Journal of the Royal Institution*, April, 1819.) The authors of the works hitherto discovered are Epicurus, Philodemos, Demetrius, Polystratus, Colotes, Phædrus, Phanas. There have been published *Herculanensium Voluminum quæ supersunt* (*tom.* i. and ii., Naples, 1793—1809, folio); *Dissertationes Isagogicæ ad Herculan. Voll. Explanationem* (*pars* i., Naples, 1797). In 1824, the university of Oxford published *Herculanensium Voll. Partes duæ*, containing fragments from the papyri at Oxford. It is to be regretted that the fourth book of Philodemos, upon music, which is printed, is only a worthless declamation on its uses. The second volume of the work first mentioned contains the natural philosophy of Epicurus. Scotti and Carlo Rossini have been engaged in the interpretation and publication of these works.

The knowledge of ancient art has gained more by the discoveries made here than literature. How many statues, bass-reliefs and other works of sculpture have been found in these buried cities! The paintings on the walls discovered here, among which are Andromeda and Perseus, Diana and Endymion, the education of Bacchus, and the celebrated Aldobrandine wedding (see *Aldobrandini*), are of particular importance, whether we consider their subjects or composition, the drawing or colouring. The

portions of the wall which contained them have been cut out, and are preserved in the museum of Portici, in sixteen apartments, under glass frames, and marked *P.*, *E.*, or *St.*, to indicate whether they were found in Pompeii, Herculaneum (called by the Italians *Ercolano*), or Stabiæ. The antiques discovered in these buried cities are represented in the great work, *Le Antichità d'Ercolano* (Naples, 1757), which, with the not very critical *Catalogo degli Antichi Monumenti d'Ercolano*, by Bayardi (1755), comprises ten folio volumes. These paintings, and some discovered later, are represented in the first six volumes of this costly work (*Con qualche Spiegazioni di Pasquale Carcani*), of which there is also a cheaper edition, by David, in France.

During the reign of Murat, the excavations were carried on with greater activity, and on a more systematic plan. Rossini, Scotti, and Pasetti, at Naples, were engaged in unrolling and deciphering the Herculanean manuscripts, and some valuable literary remains of Grecian and Roman antiquity were more or less completely restored. The attempt of the German, Sickler, at London, in 1818, to unroll the manuscripts had not the expected success, the rolls being too much injured. The attempts of Sir Humphrey, in 1820, were also unsuccessful. The excavations took place particularly in the ruins of Pompeii, and in the consular way leading from Pompeii to Naples. A part of the beautiful ceilings and floors of marble has been deposited in the galleries of the museum, others in the saloons of the drawing academy, for the study of the artists. The political events of the year 1815 interrupted the excavations. In February, 1816, king Ferdinand I. ordered a continuation of the labour. The ruins were subsequently almost closed up.*

HERCULES (called by the Greeks *Heracles* and *Alcides*); the most celebrated hero of the mythological age of Greece, in whom poetry has presented a model of human perfection, according to the ideas of the heroic age, the highest bodily vigour, united with the finest qualities of mind and heart which entered into the conceptions of that period, and all devoted to the welfare of mankind. The hero is, indeed, a man, but the godlike portion of his nature is of divine origin. He is, therefore, the son of the king of the gods, by a mortal mother. His nature strives perpetually after divine excellence, but under the common conditions of humanity; that is, amid a ceaseless succession of labours and sacrifices. His indomitable perseverance gives him the victory. This victory shows us the triumph of the divine part of man's nature over the earthly. His death secures him immortality, and a seat among the gods. What story can be more interesting and instructive than that of Hercules, throughout of a moral tendency, under an allegorical veil, and presenting so clear a picture of human life, its alternations of fortunes, its struggles, its hopes, and its prospects! No wonder, therefore, that it has afforded a favourite subject for poets and artists, and that his achievements have been multiplied without number or consistency.

The birth of Hercules was attended with many miraculous and supernatural events. Hercules was brought up at Tirynthus, or, according to Diodorus, at Thebes; and before he had completed his eighth month, the jealousy of Juno, intent upon his destruction, sent two snakes to devour him. The child, not terrified at the sight of the serpents, boldly seized them in both his hands, and squeezed them to death, while his brother, Iphiclus, alarmed the house with his frightful shrieks. Jupiter sought to prove his favourite in every manner, and to make him worthy of immortality. Once, while Juno was slumbering, he laid the infant on her breast, that he might suck the milk of the goddess. She awoke, and cast from her the hated babe. Some drops of milk that fell from her formed the milky way. With the milk of the goddess, he imbibed immortality. He was early instructed in the liberal arts, and Castor, the son of Tyndarus, taught him how to fight, Eurytus how to shoot with a bow and arrows, Autolycus to drive a chariot, Linus to play on the lyre, and Eumolpus to sing. He, like the rest of his illustrious contemporaries, soon after, became the pupil of the Centaur Chiron, and under him he perfected himself, and became the most valiant and accomplished hero of the age. When he had completed the years of boyhood, he retired into a solitary district, and stood at the meeting of two ways, reflecting on his fate. Two lovely female figures approached, and one (Pleasure) invited him to follow her flowery path; the other (Virtue) invited him to choose a course full of labour and self-control, but crowned with honour and immortality. The suit of Virtue prevailed, and Hercules resolved to pursue her guidance without shrinking.

In the eighteenth year of his age, he resolved to deliver the neighbourhood of mount Cithæron from a huge lion, which preyed on the flocks of Amphitryon, his supposed father, and which laid waste the adjacent country. He went to the court of Thespius, king of Thespis, who shared in the general calamity, and was entertained there during fifty days. The fifty daughters of the king became mothers by Hercules, during his stay at Thespis. After he had destroyed the lion of mount Cithæron, he delivered his country from the annual tribute of a hundred oxen, which it paid to Erginus. Such public services became universally known, and Creon, who then sat on the throne of Thebes, rewarded the patriotic deeds of Hercules by giving him his daughter in marriage, and intrusting him with the government of his kingdom. As Hercules, by the will of Jupiter, was subjected to the power of Eurystheus, and obliged to obey him in every respect, Eurystheus, acquainted with his successes and rising power, ordered him to appear at Mycenæ, and perform the labours which, by priority of birth, he was empowered to impose upon him. Hercules refused, and Juno, to punish his disobedience, rendered him so delirious that he killed his own children by Megara, supposing them to be the offspring of Eurystheus. (See *Megara.*) When he recovered the use of his senses, he was so struck with the misfortunes which had proceeded from his insanity, that he concealed himself, and retired from the society of men for some time. He afterwards consulted the oracle of Apollo, and was told that he

* Since the commencement of 1828, the government of Naples have caused excavations to be made. They have discovered the most splendid private house of the ancients that has ever been seen by modern eyes. The house has a suite of chambers, with a court in the centre. There is a separate part of the mansion allotted to the females, a garden, surrounded by arcades and columns, and also a grand saloon, which probably served for the meeting of the whole family. Another house, also discovered, was very remarkable, from the quantity and nature of the provisions in it, none of which have been disturbed for eighteen centuries, for the doors remained fastened, in the same state as they were at the period of the catastrophe which buried Herculaneum. The family which occupied this mansion was, in all likelihood, when the disaster took place, laying in provisions for the winter. The provisions found in the storerooms consist of dates, chestnuts, large walnuts, dried figs, almonds, prunes, corn, oil, pease, lentils, pies, and hams. The internal arrangement of the house, the manner in which it was ornamented, all, in fact, announced that it had belonged to a very rich family, and to admirers of the arts; for there were discovered many pictures, representing Polyphemus and Galatea, Hercules, and the three Hesperides, Cupid and a Bacchante, Mercury and Io, Perseus killing Medusa. There were also in the same house vases, articles in glass, bronze and *terra cotta*, as well as medallions in silver, representing in relief Apollo and Diana.

ust be subservient, for twelve years, to the will of urystheus, in compliance to the commands of Jupier; and that, after he had achieved the most celerated labours, he should be reckoned in the number f the gods. So plain and expressive an answer demined him to go to Mycenæ, and to bear with rtitude whatever gods or men imposed upon him. urystheus, seeing so great a man totally subjected him, and apprehensive of so powerful an enemy, ommanded him to achieve a number of enterprises ie most difficult and arduous ever known, generally alled the *twelve labours of Hercules*. The favours f the gods had completely armed him when he ndertook his labours. He had received a coat of rms and helmet from Minerva, a sword from Merury, a horse from Neptune, a shield from Jupiter, a ow and arrows from Apollo, and from Vulcan a olden cuirass and brasen buskin, with a celebrated lub of brass, according to the opinion of some riters.

The first labour imposed upon Hercules by Eurystheus was to kill the lion of Nemæa, which ravaged ie country near Mycenæ. The hero, unable to estroy him with his arrows, boldly attacked him ith his club, pursued him to his den, and, after a lose and sharp engagement, he choked him to eath. He carried the dead beast on his shoulders Mycenæ, and ever after clothed himself with the kin. Eurystheus was so astonished at the sight of ie beast, and at the courage of Hercules, that he rdered him never to enter the gates of the city when e returned from his expeditions, but to wait for his rders without the walls. He even made himself a rasen vessel, into which he retired whenever Hercus returned.

The second labour of Hercules was to destroy the ernæan hydra, which had seven heads, according Apollodorus, 50 according to Simonides, and 100 ccording to Diodorus. This celebrated monster he ttacked with his arrows; and soon after he came to close engagement, and, by means of his heavy club, e destroyed the heads of his enemy; but this was roductive of no advantage, for as soon as one head as beaten to pieces by the club, immediately twoprang up; and the labour of Hercules would have emained unfinished, had not he commanded his iend, Iolas, to burn with a hot iron the root of the ead which he had crushed to pieces. This succeed- (see *Hydra*), and Hercules became victorious, ened the belly of the monster, and dipped his rows in the gall, to render the wounds which he ave fatal and incurable.

He was ordered, in his third labour, to bring, ive and unhurt, into the presence of Eurystheus, stag famous for its incredible swiftness, its golden rns and brasen feet. This celebrated animal fretented the neighbourhood of Œnoe, and Hercules as employed, for a whole year, in continually puring it, and at last caught it in a trap, or when ed, or, according to others, by slightly wounding and lessening its swiftness. As he returned vicrious, Diana snatched the goat from him, and verely reprimanded him for molesting an animal hich was sacred to her. Hercules pleaded necesy, and, by representing the commands of Eurysus, he appeased the goddess, and obtained the ast.

The fourth labour was to bring alive to Eurystheus wild boar, which ravaged the neighbourhood of ymanthus. In this expedition he destroyed the entaurs (see *Centaur*), and caught the boar by osely pursuing him through the deep snow. urystheus was so frightened at the sight of the boar, at, according to Diodorus, he hid himself in his asen vessel for some days.

In his fifth labour, Hercules was ordered to clean the stables of Augeas, where 3000 oxen had been confined for many years. See *Augeas*.

For his sixth labour, he was ordered to kill the carnivorous birds which ravaged the country near the lake Stymphalis, in Arcadia. See *Stymphalis*.

In his seventh labour, he brought alive into Peloponnesus, a prodigious wild bull, which laid waste the island of Crete.

In his eighth labour, he was employed in obtaining the mares of Diomedes, which fed upon human flesh. He killed Diomedes, and gave him to be eaten by his mares, which he brought to Eurystheus. They were sent to mount Olympus by the king of Mycenæ, where they were devoured by the wild beasts; or, according to others, they were consecrated to Jupiter, and their breed still existed in the age of Alexander the Great.

For his ninth labour, he was commanded to obtain the girdle of the queen of the Amazons. See *Hippolyte*.

In his tenth labour, he killed the monster Geryon, king of Gades, and brought to Argos his numerous flocks, which fed upon human flesh. See *Geryon*.

The eleventh labour was to obtain apples from the garden of the Hesperides. See *Hesperides*.

The twelfth and last, and most dangerous of his labours, was to bring upon earth the three-headed dog Cerberus. This was cheerfully undertaken by Hercules, and he descended into hell by a cave on mount Tænarus. He was permitted by Pluto to carry away his friends, Theseus and Pirithous, who were condemned to punishment in hell; and Cerberus also was granted to his prayers, provided he made use of no arms, but only force to drag him away. Hercules, as some report, carried him back to hell, after he had brought him before Eurystheus.

Besides these arduous labours, which the jealousy of Eurystheus imposed upon him, he also achieved others, of his own accord, equally great and celebrated. (See *Cacus*, *Antæus*.) He accompanied the Argonauts to Colchis, before he delivered himself up to the king of Mycenæ. He assisted the gods in their wars against the giants, and it was through him alone that Jupiter obtained a victory. He conquered Laomedon, and pillaged Troy. When Iole, the daughter of Eurytus, king of Œchalia, of whom he was deeply enamoured, was refused to his entreaties, he became the prey of a second fit of insanity, and he murdered Iphitus, the only one of the sons of Eurytus who favoured his addresses to Iole. He was, some time after, purified of the murder, and his insanity ceased; but the gods persecuted him more, and he was visited by a disorder which obliged him to apply to the oracle of Delphi for relief. The coldness with which the Pythia received him irritated him, and he resolved to plunder Apollo's temple, and carry away the sacred tripod. Apollo opposed him, and a severe conflict was begun, which nothing but the interference of Jupiter with his thunderbolts could have prevented. He was, upon this, told by the oracle that he must be sold as a slave, and remain three years in the most abject servitude, to recover from his disorder. He complied, and Mercury, by order of Jupiter, conducted him to Omphale, queen of Lydia, to whom he was sold as a slave. Here he cleared all the country from robbers, and Omphale, who was astonished at the greatness of his exploits, restored him to liberty, and married him. Hercules had Agelaus and Lamon, according to some, by Omphale, from whom Crœsus, king of Lydia, was descended. He became also enamoured of one of Omphale's female servants, by whom he had Alceus. After he had completed the years of his slavery, he returned to Peloponnesus, where he

re-established on the throne of Sparta, Tyndarus, who had been expelled by Hippocoon. He became one of Dejanira's suitors, and married her, after he had overcome all his rivals. (See *Achelous*.) He was obliged to leave Calydon, his father-in-law's kingdom, because he had inadvertently killed a man with a blow of his fist; and it was on account of this expulsion that he was not present at the hunting of the Calydonian boar. From Calydon, he retired to the court of Ceyx, king of Trachinia. In his way, he was stopped by the swollen streams of the Evenus, where the Centaur Nessus attempted to offer violence to Dejanira, under the perfidious pretence of conveying her over the river. Hercules perceived the distress of Dejanira, and killed the Centaur, who, as he expired, gave her a tunic, which, as he observed, had the power of recalling a husband from unlawful love. (See *Dejanira*.) Ceyx, king of Trachinia, received him and his wife with great marks of friendship, and purified him of the murder which he had committed at Calydon. Hercules was still mindful that he had once been refused the hand of Iole; he therefore made war against her father, Eurytus, and killed him, with three of his sons. Iole fell into the hands of her father's murderer, and found that she was loved by Hercules as much as before. She accompanied him on mount Œta, where he was going to raise an altar and offer a solemn sacrifice to Jupiter. As he had not then the tunic in which he arrayed himself to offer a sacrifice, he sent Lichas to Dejanira, in order to provide himself a proper dress. Dejanira, informed of her husband's tender attachment to Iole, sent him a filter, or, more probably, the tunic which she had received from Nessus; and Hercules, as soon as he had put it on, fell into a desperate distemper, and found the poison of the Lernæan hydra penetrate through his bones. He attempted to pull off the fatal dress, but it was too late; and, in the midst of his pains and tortures, he inveighed, in the most bitter imprecations, against the credulous Dejanira, the cruelty of Eurystheus, and the jealousy and hatred of Juno. As the distemper was incurable, he implored the protection of Jupiter, and gave his bow and arrows to Philoctetes, and erected a large burning pile on the top of mount Œta. He spread on the pile the skin of the Nemæan lion, and laid himself down upon it as on a bed, leaning his head on his club. Philoctetes, or, according to some, Pæan or Hyllus, was ordered to set fire to the pile; and the hero saw himself, on a sudden, surrounded with the flames, without betraying any marks of fear or astonishment. Jupiter saw him from heaven, and told to the surrounding gods that he would raise to the skies the immortal parts of a hero who had cleared the earth from so many monsters and tyrants. The gods applauded Jupiter's resolution. The burning pile was suddenly surrounded with a dark smoke, and, after the mortal parts of Hercules were consumed, he was carried up to heaven in a chariot drawn by four horses. Some loud claps of thunder accompanied his elevation, and his friends, unable to find either his bones or ashes, showed their gratitude to his memory by raising an altar where the burning pile had stood. Menœtius, the son of Actor, offered him a sacrifice of a bull, a wild boar, and a goat, and enjoined the people of Opus yearly to observe the same religious ceremonies. His worship soon became as universal as his fame, and Juno, who had once persecuted him with such inveterate fury, forgot her resentment, and gave him her daughter, Hebe, in marriage.

Hercules has received many surnames and epithets, either from the place where his worship was established, or from the labours which he achieved. His temples were numerous and magnificent, and his divinity revered. No dogs or flies ever entered his temple at Rome, and that of Gades, according to Strabo, was always forbidden to women and pigs. The Phœnicians offered quails on his altars, and, as it was supposed that he presided over dreams, the sick and infirm were sent to sleep in his temples, that they might receive in their dreams the agreeable presages of their approaching recovery. The white poplar was particularly dedicated to his service. Hercules is generally represented naked, with strong and well proportioned limbs; he is sometimes covered with the skin of the Nemæan lion, and bears a knotted club in his hand, on which he often leans. Sometimes he appears crowned with the leaves of the poplar, and holding the horn of plenty under his arm. At other times, he is represented standing with Cupid, who insolently breaks to pieces his arrows and his club, to intimate the passion of love in the hero, who suffered himself to be beaten and ridiculed by Omphale, who dressed herself in his armour, while he was sitting to spin with her female servants. The children of Hercules are as numerous as the labours and difficulties which he underwent; and, indeed, they became so powerful, soon after his death, that they had the courage to invade almost all Peloponnesus. See *Heraclidæ*.

Such are the most striking characteristics of the life of Hercules, who is said to have supported, for a while, the weight of the heavens upon his shoulders (see *Atlas*), and to have separated, by the force of his arm, the celebrated mountains which were afterwards called the boundaries of his labours. (See *Abyla*). He is held out by the ancients as a true pattern of virtue and piety; and, as his whole life had been employed for the benefit of mankind, he was deservedly rewarded with immortality.

As to the origin of his story, many writers believe that the Oriental deities, called by the Greeks *Hercules*, are merely astronomical symbols. The Egyptian Hercules (properly *Chom*, or *Dom*) belongs, according to Herodotus and Diodorus, to the twelve great heavenly deities, who, 17,000 years before Amasis, sprung from the eight gods. As these eight gods, as well as the twelve, are to be understood in an astronomical sense, it is believed that Hercules is merely the symbol of the course of the sun through the twelve signs, or of a year; and the fable that he lived 17,000 years before Amasis means that astronomical calculations had existed from that time. The Phœnician Hercules, whose proper name is *Melcarthus*, points to a similar origin, by the name of his mother, *Asteria* (the starry heavens). And it is believed that, even in the Theban or Grecian Hercules, many traces of the original Oriental idea are to be found. According to this notion, the twelve labours are only the passage of the sun through the twelve signs. His marriage with Hebe was explained, even by the ancients, as symbolic of his renewing his course, after its completion. We must not forget that the Greek Hercules is of Phœnician origin, his native city Thebes, being a Phœnician colony. The Phœnician Hercules, as the patron and symbol of the nation, accompanied them wherever they went and settled, and thus the travels of Hercules appear as a symbol of the extension of this nation by commerce and navigation, and of the civilisation which was a consequence of it. It is possible that no Hercules ever existed, in which case we must consider the Heraclidæ as merely descendants of the Græco-Phœnician colony of Thebes. A Theban Hercules, however, may have existed, and this is rendered probable by the circumstance that an old tradition says that his name was not originally *Hercules*, but *Alcæus*, and that he received the former name from the god Hercules

Sext. Empir., *Adv. Phys.* 557 *ed. Fabric.*) However hat may be, every thing reported of any other Hercules was transferred to this Alcæus, or Theban Hercules, and these traditions became the foundation of the tales of the fabulous hero.

After this fusion of different traditions, the Greek Hercules became the symbol of the history of Grecian civilization. This was accomplished in three different ways:—first, physically, as by the draining of morasses and lakes, the digging of canals, and the extirpation of forests, and the wild beasts which infested them, &c.; secondly, commercially, by navigation and intercourse with distant countries; thirdly, in a politico-religious way, by the institution of sacred games, laws, &c. All this was effected by the Phœnico-Theban Hercules, to whom a great number of cities, Phœnician colonies, traced back their origin. They celebrated feasts in honour of him, at which they sang of his exploits. The original astronomical ideas were blended with wonderful tales of the maritime expeditions and the deeds of one or of several Greek heroes. In this way the *Heraclea*, that is, long poems on the life and adventures of Hercules, were formed. There were, doubtless, poems of this kind, in a simpler form, before the time of Homer. Then came the dramatic poets, who, in the *drama-satyricon*, used to exhibit a sort of burlesque Hercules, which gave rise to a number of comic stories of Hercules, as his having been a great eater and drinker, having laboured at the spinning-wheel of Omphale (a satire on men under petticoat government), &c.

There seems, then, to be little doubt that Hercules, as a hero, owes his origin to poetry only; and the plastic art seized with eagerness upon the poetical ideal of strength and virtue. Hercules is represented, in the series of Grecian ideal figures, brawny and muscular, with strong, broad shoulders, a short, thick neck, a high chest and a small head. The expression of the face is spirited and good natured, occasionally with a tinge of fierceness. His beard is curly, his hair short. He is generally naked, with a lion's skin and a club. The principal statue of this hero, which remains to us, is the Farnese Hercules, at Rome, a work of the Athenian Glycon. His various adventures and exploits enabled the artists to represent him under a variety of forms, as a child, a youth, and a man, struggling, suffering, and enjoying, in repose, and in full action. The *Torso di Michel-Angelo* (in the Vatican), so called because that great artist studied this fragment of a statue of Hercules seven years, is a remarkable figure. From the anatomy of this *torso*, the figure appears to have been sitting in a stooping posture, leaning on the club, with the head raised. The lion's skin is spread over the seat. The breast and shoulders, the parts particularly characteristic of Hercules, are remarkably fine; but the muscles are not expressed so forcibly as in other representations, the artist (Apollonius of Athens, son of Nestor) intending to represent, not the struggling hero, but the god reflecting on the deeds which gave him immortality. Another singular representation of Hercules is as the leader of the muses, *Hercules Musagetes*, which honour he can hardly have attained by his own acquirements; yet he was sometimes represented in this character, with the lyre. The idea is Roman. Fulvius Nobilior erected a temple to Hercules, in which he placed the muses, which he had brought from Ambracia, as if he intended to remind his countrymen, that warlike virtue and valour were not inconsistent with intellectual accomplishments.

HERCULES, one of the northern constellations, containing 113 stars, the principal of which is Ras Algiatha, a star of the third magnitude.

HERCULES, PILLARS OF; two pillars which Hercules is said to have erected, on each side of the strait named after him, or the strait of Gades (Gibraltar), between Europe and Africa, upon the mountains Calpe and Abyla, as the limits of his wanderings towards the west. See *Gibraltar*.

HERCYNIA; a celebrated forest of Germany, which, according to Cæsar, required nine days' journey to cross it, and which, in some parts, was found without any boundaries, though travelled over for sixty days successively. It contained the modern countries of Switzerland, Basil, Spires, Transylvania, and a great part of Russia. In process of time, the trees were removed, and the greatest part of it was made habitable.

HERDER, JOHN GODFREY VON, a classical German author, was born, August 25, 1744, at Mohrungen, a small place in Eastern Prussia, where his father taught a school for girls. His early education was not favourable to the development of his faculties. His father permitted him to read only the Bible and the hymn-book, but an insatiable thirst for learning led him to prosecute his studies in secret. The clergyman of the place employed the boy as a copyist, and soon discovered his talents, and allowed him to participate in the lessons which he gave his own children in Latin and Greek. At this time, young Herder suffered from a serious disease of the eyes, which was the occasion of his becoming better known to a Russian surgeon, who lived in the clergyman's house, and who was struck with the engaging manners and pleasing appearance of the youth. He offered to take Herder with him to Konigsberg and to Petersburg, and to teach him surgery gratuitously. Herder, who had no hope of being able to follow his inclinations, left his native city, in 1762; but, in Konigsberg, he fainted at the first dissection at which he was present. He now resolved to study theology. Some gentlemen to whom he became known, and who immediately interested themselves in his favour, procured him an appointment in Frederic's college, where he was at first tutor to some scholars, and, at a later period, instructer in the first philosophical and second Latin class, which left him time to study. During this period, he became known to Kant, who permitted him to hear all his lectures gratis. He formed a more intimate acquaintance with Hamann. His unrelaxing zeal and diligence penetrated the most various branches of science, theology, philosophy, philology, natural and civil history, and politics. In 1764, he was appointed an assistant teacher at the cathedral school of Riga, with which office that of a preacher was connected. His pupils in school, as well as his hearers at church, were enthusiastically attached to him, so much that it was thought necessary to give him a more spacious church. His sermons were distinguished by simplicity, united with a sincere devotion to evangelical truth and original investigation. In 1767, he received from Petersburg the offer of the superintendence of St Peter's school, in that city; but he declined this offer, and even gave up his place at Riga, because he could not resist his inclination to study the arts in their sources, and men on the stage of life. He had already arrived in France, when he was appointed travelling tutor to the prince of Holstein Oldenburg, who was on a tour through France and Italy. But in Strasburg, he was prevented from proceeding by the disease of his eyes, which had returned, with more severity than before; and here he became acquainted with Goethe, on whom he had a very decided influence. Herder had already published his Fragments on German Literature, his Critical Wolds, and other productions, which had gained him a considerable reputation, though he had not, at this time, published any thing

of importance in theology; yet, while in Strasburg, he was invited to become court preacher, superintendent, and consistorial counsellor, at Buckeburg, whither he proceeded in 1771. He soon made himself known as a distinguished theologian, and in 1775, was offered a professorship at Gottingen, which he, however, did not accept immediately, because the king had not confirmed his appointment unconditionally, and, contrary to custom, he was expected to undergo a kind of examination. But, being married, Herder did not feel at liberty to decline the appointment. On the very day when he had resolved to go to Gottingen, he received an invitation to become court preacher, general superintendent, and consistorial counsellor at Weimar. This appointment was through the influence of Goethe. He arrived in Weimar in October, 1776. It was at the time when the duke Augustus and the princess Amalia had collected many of the most distinguished German literati at their court. Weimar was greatly benefited by Herder's labours, as a pulpit orator, inspector of the schools of the country, the patron of merit, and founder of many excellent institutions. In 1801, he was made president of the high consistory, a place never before given to a person not a nobleman. Herder was subsequently made a noble by the elector of Bavaria. He says himself that he accepted the rank for the sake of his children; of course, it could be of little consequence to him personally. He died December 18, 1803. His widow wrote Reminiscences of Herder's Life, which J. G. Muller published, in two volumes (Stuttgard, 1820.)

Herder was a model of virtue, and ready to do all the good in his power, yet his mind was often overcast with melancholy, on which occasions he would exclaim, *O mein verfehltes Leben!* (O my profitless life!) Germany is deeply indebted to him for his valuable works in almost every branch of literature, and few authors have had a greater influence upon the public taste in that country. A good idea of Herder's character may be obtained from reading Jean Paul Richter's enthusiastic remarks concerning him, in the *Wahrheit aus Jean Paul's Leben*, published after the author's death, and the article, by the same, on Herder, in the *Heidelberger Jahrbucher* of 1812. His works were published, in forty-five octavo volumes, by Cotta, in Tubingen, in 1806; and an edition, in sixty small 12mo volumes, is now publishing by the same. It is divided into several parts; that comprising his writings on belles-lettres and literature, that on religion and theology, and that on philosophy and history. As a theologian, Herder contributed to a better understanding of the historical and antiquarian part of the Old Testament. His *Geist der Hebräischen Poesie* (1782; third edition by Justi, Leipsic, 1825, 2 vols., with additions) is highly valued. He did much for the better understanding of the classical authors, and his philosophical views of human character are full of instruction. He contributed much to a more active study of nature, brought before the public the poetry of past times of Europe and Asia, and awakened a taste for national songs. His greatest work is his *Ideen zur Philosophie der Geschichte der Menschheit* (Riga, 1785 et seq.; a new edition, with an introduction, by professor Luden, Leipsic, 1821), in which all the light of his great mind is concentrated. "In early years," says Herder, "when the fields of knowledge lay before me, with all the glow of a morning sun, from which the meridian sun of life takes away so much of the charm, the idea often occurred to my mind, whether, like other great subjects of thought, each of which has its philosophy and science, that subject also, which lies nearest to our hearts,—the history of mankind, viewed as a whole,—might not also have its philosophy and science. Every thing reminded me of this idea—metaphysics and morals, natural philosophy and natural history, lastly and most powerfully, religion." This is the key to all Herder's life. The object of his investigations was to find the point from which he might calmly survey every thing, and see how all things converge. He did not attempt to arrive at this point by metaphysical speculations, but by observation, by the constant study of nature and the mind, in all its works, in the arts, law, language, religion, medicine, poetry, &c. Whatever may be said against parts of his work above mentioned, it is one of the noblest productions of modern literature. The style of Herder is pure and correct. In poetry, Herder effected more by his various accomplishments, his vast knowledge and fine taste, than by creative power; yet he has produced some charming songs; and his *Cid*, a collection of Spanish romances into a kind of epic, is one of the most popular poems of Germany. In 1819, the grand duke of Weimar ordered a tablet of cast iron to be put on his grave, with the words *Licht, Liebe, Leben* (Light, Love, Life).

HERE. See *Juno*.

HEREDITAMENTS; all such things, immovable, whether corporeal or incorporeal, as a man may leave to his heirs, by way of inheritance, or which, not being otherwise devised, naturally descend. Corporeal hereditaments consist wholly of substantial and permanent objects; incorporeal hereditaments are not the objects of sensation, are creatures of the mind, and exist only in contemplation. They are principally of ten sorts, viz., advowsons, tithes, commons, ways, offices, dignities, franchises, presents, and rents.

HEREDITARY DISEASES. See *Disease, Hereditary*.

HEREDITARY OFFICES. The few traces of such in antiquity are found mostly in the family offices of the priesthood. In the ancient German courts, it became a custom to assign, as marks of distinction, to the most eminent and loyal, those personal and domestic services towards the prince, which the Greeks and Romans imposed on slaves and freedmen. Thus arose the great court and crown offices:—1. of the household (*major domus*, high-steward; *cämerarius*, chamberlain); 2. of the kitchen (seneschal, *dapifer*, sewer); 3. of the cellar (cup-bearer, *cellarius*; *buticularius*, *pincerna*, butler); 4. of the stable (marshal, *comes stabuli*, *connétable*), all at the same time, united with a high post in the army. The highest court officers of the German empire were the secular prince-electors, who, in later times, appointed hereditary deputies, to discharge the duties incumbent on them on solemn occasions, such as the crowning of the emperor, for instance. This remnant of feudalism has been justly abolished in modern times, in many countries, whilst we are sorry to see that, in some countries, they have been even lately established. Thus George IV., as king of Hanover, within a few years, created count Munster his favourite, hereditary marshal of Hanover. The only rational defence of hereditary monarchies is that they are sometimes necessary to prevent greater evils; but this reason does not apply to hereditary succession in inferior offices, which is altogether a barbarous remnant of feudal times, when powers were extorted, and the true objects of government little understood.

HERETIC; one who embraces a heresy. From the Greek *αἵρεσις*, which originally only meant a choice, from *αἱρεομαι* (I choose), without implying praise or dispraise. Thus we hear of the Peripatetic heresy, or sect of philosophers; and the heathens spoke of the Christian *heresy*, meaning merely their doctrine.

When the idea of a Catholic church, its dogmas and exclusive claims to salvation, became more fully developed, the word *heretic* was used in a narrower sense, to indicate one who differs from the Catholic, that is, universal church, and who, at the same time, calls himself a Christian. Hence neither Jews nor Mohammedans, nor even apostates from Christianity, except very rarely, are called *heretics*. Augustin gives the following definition of a heretic:—*Hereticus est qui alicujus temporalis commodi, et maxime gloriæ principatûsque causa, novas opiniones vel gignit, vel sequitur;* and *qui sub vocabulo Christiano doctrinæ Christianæ contumaciter resistit.* The definition of a later distinguished Catholic writer, Bossuet, is:—*Un hérétique est celui qui a une opinion à lui, qui suit sa propre pensée, et son sentiment particulier; un Catholique, au contraire, suit sans hésiter le sentiment de l'église universelle.* It is plain that the idea of a heretic presupposes the idea of a universal or general church, and an established faith. Thus Christ was crucified, and Stephen stoned by the Jews for heresy, or for deviating from their established church. The origin of heretics is to be referred to the time when a Christian church was publicly established, and began to acknowledge certain dogmas as orthodox, and to designate opinions at variance with them as false. Yet a diversity of opinions always existed on certain points, because the Bible is a book of faith, treating of divine subjects in the imperfect language of men, and, therefore, admitting, in many passages, different explanations, according to different preconceived views.

Many of the early Christians preserved their Jewish or Greek philosophical notions, and mingled them with the doctrines of Christianity. This was another source of difference. Even in the time of the apostles, we find traces of the Gnostics. From them sprang the Simonians (who opposed to the supreme God a principle of evil), the Nicolaitans and the Cerinthians, who introduced Jewish Gnostic ideas into Christianity. In the second century, we must mention particularly the Basilidians, who taught the generation of the Æons from God, and denied the divinity of Christ; the Carpocratians, who considered Christ a mere man, and maintained that the most wicked had the greatest chance of salvation; the Nazaræans, following the Mosaic law with great strictness; the Ophites, worshipping Christ under the image of a serpent; the Patropassians, denying the distinction of three persons in the Godhead; the Artemonians, believing in a union of a part of the Godhead with Christ at his birth; the Hermogenians, asserting the production of the human soul from an eternal but corrupt matter; the Montanists, who held their founder for the Comforter; the Sethites, who declared Seth to be the Messiah; the Quartodecimans, who celebrated Easter like the Jews; the Cerdonians, who denied the resurrection; the Manichæans (q. v.), who adopted two divine principles, and mixed the wildest theories with the doctrines of Christianity; the Alogians, who denied the divinity of Christ; the Encratites, who condemned matrimony; the Artotyrites, who used bread and cheese in the Lord's Supper.

In the third century, there were the Monarchists, denying three persons in the Godhead; the Samosatenians and Paulinians, declaring Christ a mere man, and the Holy Ghost a divine power; the Aracici, denying immortality; the Hieracites, belonging to the Manichæans; the Noetians, teaching that God the Father had become a man, and suffered; the Sabellians, denying the distinction of persons in the Trinity; the Novatians, who refused to re-admit those who had fallen off during the times of persecution; the Origenians, believing in the final salvation of the devil and the damned; the Chiliasts, or Millenarians, believing in a millennium; the Aquarians, using water instead of wine, in the Lord's supper.

In the fourth century, the principal heretical sects were the Arians, ascribing to the Son a nature and essence inferior to that of the Father; the Apollinarians, denying the human nature of Christ; the Photinians, maintaining that Christ was born of the Holy Ghost and Mary; the Macedonians, denying the divinity of the Holy Ghost; the Priscillianists, reviving the Gnostic errors; the Donatists, who held peculiar opinions respecting the church; the Euchites, ascribing to each individual an evil spirit, which could only be driven out by prayer; the Collyridians, who made offerings to Mary; the Seleucians, ascribing a bodily form to God; the Anthropomorphites, ascribing a human body to God; the Jovinians, denying the virginity of Mary; the Bonosians or Adoptianists, considering Christ as merely the adoptive Son of God.

In the fifth century arose the Nestorians, who attributed the two natures of Christ to two persons; the Eutychians, Monophysites, and Jacobites, allowing but one person in Christ; the Theopaschites, teaching the incarnation and crucifixion of the three persons of the Godhead; the Pelagians, denying the depravity of human nature, and its salvation by grace alone; the Predestinarians, teaching the foreordination of salvation and damnation.

In the sixth century were the Agnoetæ, teaching that Christ, in his human nature, did not know all things; the Tritheists, making three distinct Gods of the three persons of the Deity; the Monothelites, allowing only one will in Christ; the Aphthardocetes, teaching that the body of Christ was not subjected to any suffering.

In the ninth century were the Paulicians, adhering to some doctrines of the Manichæans: in the twelfth century, the Bogomili, teaching the creation of the world by a fallen angel, driven from heaven; the Catharists, reviving Gnostical doctrines; the Petrobusians, rejecting the baptism of children; the Waldenses, demanding a reformation of the church; the Mystics, the Wicliffites, Hussites, and, at a later period, the Lutherans, Calvinists, with all the variety of Protestant sects and churches.

It is evident that for the historian, the word *heretic* can have only the relative meaning of *heterodox* because, as soon as a church or sect declares itself in possession of the true and sole doctrine of salvation and religious truth, it declares, by this circumstance, all other doctrines of faith heretical. Thus the Greek Catholic church declares Roman Catholicism a heresy, and *vice versa*, whilst the Calvinist declares popery a heresy. We shall not here speak of all the persecutions which different sects have directed against those whom they considered heretics, but will only mention that the Roman Catholic church, as such, has always made a distinction between heretics who obstinately persist in their heresy, and heretics merely through error, or who have been born in heresy. The fathers of the church declare themselves ignorant of the final condition of the latter. Again, the church distinguishes peaceable heretics from those whose doctrines produce public confusion and disorder. However, it generally considers that all heresies lead, sooner or later, to disturbances and bloodshed.

The doctrines considered heretical by the Roman church may be found in the *Dictionnaire des Hérésies*, by the abbé Pluquet, with the history, progress, nature, and also the Catholic refutations of their errors. It is well known that the Catholic church prohibits priests from shedding blood (they were not even allowed to perform surgical operations); and hence,

according to the Catholic representation, death has never been inflicted upon heretics by the church, which merely declared them, after due admonition, to be heretics, excommunicated them, and gave them up to the secular government, to be treated according to the laws, a view of religious persecutions which has been adopted by other sects also; but, for the impartial historian, this argument can have no other weight, than that the church, as such, has not ordered the execution of heretics, whilst its members were often affected by the spirit of the age, and, by giving up a heretic to the secular government, aware that a painful torture and cruel death awaited him, in fact, devoted him to destruction. It must be remembered, however, that secular princes were often active in the prosecution of heretics, considering them as disturbers of the peace; and several instances are on record, in which the pope requested sovereigns to avoid cruelty towards heretics. Before Christianity was made the religion of the Roman state, nothing but excommunication was inflicted upon the heretic; but severe laws were passed soon after the conversion of the emperors. When the bishop excommunicated a heretic, the secular authority banished him; he lost his civil rights, and was even punished with death; he could not be an accuser, witness nor judge; could not make a will; and even his family were subjected to some penalties. The code of Justinian contains many ordinances against heretics, and the canon law made it a duty to denounce them, under pain of excommunication, even if the party were a wife or husband, parent or child, and to assist their judges, without remuneration, &c. They were not permitted to be acquainted with the witnesses against them, nor with their testimony; they were not allowed to have counsel, nor to appeal. As early as 385, Priscillian was condemned to death, as a heretic, by the Spanish bishops at the council of Treves; and the punishment of death, which the emperors ordered to be inflicted on the Arians, after the Nicene council, was more commonly inflicted on heretics. But *the persecutions of heretics*, properly so called, began in the pontificate of Gregory VII., in the eleventh century. The emperor Frederic II. authorised them, against the Albigenses and Waldenses, by an edict, issued at Padua, in 1222. From that time, persecutions of heretics took place in almost all Christian countries. Spain, Italy, and France, from the thirteenth to the sixteenth century, suffered much from these persecutions, which were often conducted with more fury, as political considerations were mingled with them; and the massacre of St Bartholomew, and the acts of the Spanish inquisition, are foul blots on the history of man. The states of Germany, collectively, have never shown that spirit of persecution which has stained other countries. The *Carolina* does not mention heresy at all; and, by the peace of Westphalia, it was settled that neither of the three confessions (Catholics, Lutherans, and Calvinists), should accuse the other of heresy. As the unity of the church is considered, by the Catholics, one of its three essential qualities, heresy, or a deviation from the dogmas of the church, must appear to them much more alarming than to other Christian sects. See Semler's *Introduction to Baumgarten's Polemics;* C. M. F. Walch's *Sketch of a Complete History of Heresy;* Baumgarten's *History of Religious Divisions*, and J. G. Walch's *Biblio. Theol.*

HERIOT. See *Hariot.*

HERMANDAD (Spanish, *brotherhood*). The cities of Castile, as they advanced in consideration, and obtained, by the grants of the kings, who made use of their services against the arrogant nobility, a feeling of their own importance, frequently formed connexions to defend themselves against the usurpations and the rapaciousness of the feudal nobility. This object was most clearly apparent in the brotherhood (Hermandad), formed in 1295, by the cities of the kingdoms of Castile and Leon, which threatened with the destruction of his houses, vineyards, and gardens, every nobleman who should rob or injure a member of the association, and who would not make satisfaction, or give security for the observance of the law. Even if a nobleman had only challenged a member of the association, and refused to give security, the challenged person had the right of putting him to death. These fraternities were the model of the later Hermandad of the municipal communities, which was formed in Castile, under the reign of Ferdinand and Isabella. It was established in 1476, with the approbation of the king, at a time when the nobles paid no attention to the royal commands to keep the peace, robbed the defenceless villages and industrious citizens, and made the highways unsafe. The city authorities raised a military force, and appointed judges in different parts of the kingdom. The disturbers of the public peace were sought out by the armed bands, carried before the judges, and punished. Neither rank nor station protected the offender against the tranquillity of the country, nor could he find safety even in the churches. The nobility, who saw their turbulence restrained, and their judicial power limited, by this institution, opposed it in vain; for the king protected the Hermandad, as a powerful means of preserving public peace, and, at the same time, an effectual means of strengthening and extending the royal power, since the forces of the city authorities composed a part of the standing army, without needing to be paid by the court. The Hermandad was also introduced into Arragon, in 1488. The Santa Hermandad (holy brotherhood) (a name which has occasioned some to confound this institution with the inquisition, or to consider it as depending upon that establishment), had, like the earlier institution, of which it was a continuation, the object of securing internal safety, and seizing disturbers of the peace and highway robbers, but did not act except in case of offences actually committed. It consisted only of a company of armed police officers, who were distributed in the different provinces of the kingdom of Castile, and whose duty it was to provide for the security of the roads outside of the cities. One of their strictest regulations was, not to use their power within the cities. They were subject to the council of Castile. The principal divisions of the company had fixed stations at Toledo, at Ciudad Rodrigo, and at Talavera.

HERMANN, or ARMINIUS. See *Arminius.*

HERMANSTADT, or, in Hungarian, SZEBEN (anciently *Cibinium*, or *Hermanopolis*); a city of Transylvania, capital of the division settled by Saxons, on the Szeben; 147 miles N. E. Belgrade, 300 S. E. Vienna; lon. 23° 50′ E.; lat. 46° 0′ N.; population, 13,300. It contains four Lutheran churches, three Catholic, one Calvinist, one Greek; a university with the national archives; a gymnasium with a library of 5000 vols.; another library of 15,000 vols.; and some other seminaries. The streets are narrow and crooked. Its chief manufacture is soap and candles. It is fortified with a double wall and a deep moat. It is situated on the side of the Szeben, which soon after runs into the Aluta. In the neighbourhood is the pass of Rothethurm.

HERMAPHRODITE; a term formerly applied exclusively to signify a human creature possessed of the organs of both sexes. The term is now applied to other animals, and to plants. It is now well known there is no such thing as an hermaphrodite in

he human species. In many of the inferior tribes of animals, the male and female parts of generation are found to be united in the same animal. There are both natural and unnatural or monstrous hermaphrodites. The natural kind belongs to the inferior and more simple orders of animals; but, as animals become more complicated, and each part is more confined to a particular use, a separation of the sexual characteristics takes place, and they are found united only in some particular cases. In the horse, ass, sheep, and cattle, such instances sometimes occur. In the case of cattle, when a cow brings forth two calves, one a bull, and the other a cow to appearance, the cow is unfit for propagation, but the bull-calf becomes a proper bull. Such cows do not breed; they do not show the least inclination for the bull, nor does the bull ever take notice of them. Among the country people in England, this kind of calf is called a *free-martin*, and is as well known among the farmers as either cow or bull. When they are preserved, it is to yoke with the oxen, or fatten for the table. They are much larger than either the bull or the cow, and the horns grow longer and bigger, being very similar to those of an ox. The bellow of a free-martin is also similar to that of the ox, and the meat is similar to that of the ox or spayed heifer—viz., much finer in the fibre than that of either the bull or cow—and they are more susceptible of growing fat with good food.

Among the invertebral animals, such as worms, snails, leeches, &c., hermaphrodites are frequent. In the memoirs of the French academy, we have an account of this very extraordinary kind of hermaphrodites, which not only have both sexes, but do the office of both at the same time. Such are earth-worms, round-tailed worms, found in the intestines of men and horses, land-snails, and those of fresh waters, and all the sorts of leeches. Among the animals of this sort, however, there are great numbers which are so far from being hermaphrodites, that they are of no sex at all. Of this kind are all the caterpillars, maggots, and worms produced of the eggs of flies of all kinds. But the reason of this is plain: these are not animals in a perfect state, but disguises under which animals lurk. They have no business with the propagating of their species, but are to be transformed into animals of another kind, by the putting off their several coverings; and then only they are in their perfect state, and therefore then only show the differences of sex. When they have reached this state, they unite, and their eggs produce those creatures which show no sex till they arrive at that perfect state again.

HERMAPHRODITUS (called also *Atlantius*, from his grandfather *Atlas*) was the son of Mercury (Hermes) and Venus (Aphrodite), and united in himself the beauty and the names of both his parents. He was educated by the nymphs of mount Ida, and, at the age of fifteen, he abandoned his home, and wandered in the neighbouring regions. As he stood by the transparent fountain of the nymph Salmacis, in Caria, she was captivated with his charms. The modest youth rejected her entreaties; but, as he was bathing in the fountain, she ardently embraced him. Still, however, he refused to return her love. The nymph entreated the gods, that they might never more be separated. Her prayer was heard, and they were immediately united into one body, retaining the characteristics of both sexes. The youth begged of his parents, that whoever might bathe in the fountain, should undergo the same change. There is a celebrated statue of Hermaphroditus in the gallery of the grand duke at Florence. Another was lately been found among the ruins of Pompeii. (See Bottiger's *Amalthea*, vol. i.) This work contains some remarks on the Hermaphrodite statues, and their connexion with Bacchus. Bottiger is of opinion that the fable of Hermaphroditus sprung from the old Asiatic doctrine of a union of the generating and conceiving power in the same principle. Others think Hermaphroditus a composition of Mercury and Venus, exhibiting the union of eloquence, or of commerce, represented by Mercury, with pleasure, or Venus.

HERMELIN, Samuel Gustavus, baron, a Swedish nobleman, eminent for his literary and scientific attainments, a native of Stockholm, was born in 1744. Having early in life travelled for improvement over a great part of the European continent, he was afterwards intrusted with the conduct of a diplomatic mission from his own government to that of the United States of America. On his return, in 1784, he visited England, of which he made the tour, directing his attention there, as well as in the other countries through which he passed, principally to the study of geology and statistics. In the pursuit of his favourite sciences, no small portion of his property, and more than fifteen years of his life, were devoted to a most laborious geographical undertaking, which, commencing with the survey of Westro-Bothnia and Lapland, finally ripened, through the assistance of a company, which he formed on the failure of his own pecuniary resources, into the completion of an entire Swedish atlas. Through his exertions, also, and principally at his own expense, great improvements were introduced among the mining establishments of the country, especially in Bothnia, where three new forges were erected by him, and the iron mines, of which he was now appointed superintendent, were worked under his direction. After fifty-four years spent in active service, he retired from public life in 1815, retaining his salary, with an additional pension of 1000 rix dollars. Besides a great variety of tracts printed among the Transactions of the Academy of Stockholm, of which society he had been a member since the year 1771, the following treatises were published by him in a separate form: a Mineralogical Description of Lapland and Westro-Bothnia, with Tables of the Population and Industry of the latter Province; Mineralogical Charts of the Southern Provinces of Sweden; On the Melting and Casting of Copper Minerals; On the Use of Stones found in the Swedish Quarries; and an Essay on the Resources of the Swedish Provinces. Mr Hermelin closed a long and useful life at the age of seventy-four, May 4, 1820.

HERMENEUTICS (formed from a Greek word, which signifies to *explain* or *interpret*) is the science which fixes the principles of interpretation. The word is commonly used only of the interpretation of the sacred writings. *Hermeneutics* bears the same relation to *exegesis*, as *theory* to *practice*. See *exegesis*.

HERMES. See *Mercury*.

HERMES, in statuary, are heads placed on a quadrangular stone. They probably received their name from *Hermes* (the Greek for *Mercury*), whose statues were most frequently made in this way, and erected by the side of the road. *Hermathene*, compounded of Ἑρμῆς and Ἀθηνᾶ (Minerva), is a Hermes head of Minerva; *Hermeracles* is one of Heracles or Hercules: and *Hermeros*, that of Eros or Cupid, &c. Statues of this kind were the first attempts of Greek statuary; but this form was retained even in the most flourishing period of Greek art. In Athens, they were placed before every house, and it was considered an act of sacrilege to violate them. With the Romans, they were called *Termini*, from the god of boundaries, *Terminus*, because they were used as land-marks and mile-stones. Not only gods and demigods were represented under the form of

hermes, but also philosophers, politicians, orators, &c., according to the circumstances of the place. Sometimes the head merely, sometimes the breast also, and sometimes even a larger part of the body, was represented.

HERMES TRISMEGISTUS; an historical name, of which no certain account can be given. It was applied, by the Egyptians and Phœnicians, to the inventor of letters, and of all the useful arts and sciences. The Egyptians called him also *Thot*, *Taaut*, *Thoyt* or *Theut*, and placed his image, as that of a benevolent god, by the side of the images of Osiris and Isis, his contemporaries. According to Diodorus, he was the friend and counsellor of the great Osiris. He formed the Egyptian language, and invented the first written characters; he was, moreover, the inventor of grammar, astronomy, arithmetic, geometry, music, medicine; he was the first lawgiver, the founder of the religious ceremonies of the Egyptians, the first cultivator of the olive-tree, the first instructer in gymnastics and the joyous dance. Sanchoniathon, Manetho, and Plutarch, give a similar account of his wisdom. But every thing relating to the subject is so uncertain and obscure, that even the time when and the place where he lived, cannot be assigned with any certainty. It is even doubtful whether there ever was such an individual. To transmit his knowledge to posterity, Hermes engraved it upon pillars of stone; and to these pillars Plato and Pythagoras were supposed to have been indebted for much of their science. These inscriptions were afterwards copied into books, and a great number of books were ascribed to Hermes. The Alexandrian school, in particular, attributed to him all their mystic sciences, magic, theosophy, alchymy, and the like. Some of the works ascribed to Hermes are extant, while of others we have only the titles. Among the first are *Poemander* and *Asclepius* (London, 1628.) Modern enthusiasts have viewed the books which bear the name of Hermes as a fountain of secret wisdom.

HERMETIC ART. See *Alchemy*.

HERMETICAL PHILOSOPHY is that which professes to explain all the phenomena of nature, from the three chymical principles of salt, sulphur, and mercury.

HERMETICAL SEALING is used to denote a peculiar manner of stopping or closing glass vessels for chemical and other operations, so that not the rarest medium can either escape or enter. This is usually done by heating the neck of the vessel in the flame of a lamp with a blow-pipe, till it be ready to melt, and then, with a pair of hot pincers, twisting it close together.

HERMIONE; 1. a daughter of Mars and Venus, who married Cadmus. The gods, except Juno, honoured her nuptials with their presence, and she received as a present, a rich veil and splendid necklace, which had been made by Vulcan. She was changed into a serpent with her husband Cadmus, and placed in the Elysian fields.

2. A daughter of Menelaus and Helen. She was privately promised in marriage to Orestes, the son of Agamemnon; but her father, ignorant of this pre-engagement, gave her hand to Pyrrhus, the son of Achilles, whose services he had experienced in the Trojan war. Pyrrhus, at his return from Troy, carried home Hermione, and married her. Hermione, tenderly attached to her cousin Orestes, looked upon Pyrrhus with horror and indignation. According to some, however, Hermione received the addresses of Pyrrhus with pleasure, and even reproached Andromache, his concubine, with stealing his affections from her. Her jealousy of Andromache, according to some, induced her to unite herself to Orestes, and to destroy Pyrrhus. She gave herself to Orestes after this murder, and received the kingdom of Sparta as a dowry.

3. A town of Argolis, where Ceres had a famous temple.

HERMIT. See *Anachorets*.

HERMITAGE; one of the finest French wines, which is produced along the Rhone, between Valence and Valière, in the *ci-devant* Dauphiny. It is of two kinds, red and white; the former is preferred. It takes its name from Mount Hermitage, lying opposite the village of Tain. Much is exported by the way of Cette, or carried into the country to mix with inferior wines.

HERMIT CRAB (*pagurus*). This genus of *crustacea* belongs to the second family (decapods *macroura*), or those having ten legs and a long tail. The generic characters are, intermediate antennæ curved, having a very long peduncle; body oblong, thorax crustaceous; abdomen vesicular, naked, soft, and furnished at tip with hooks or holders. These crabs inhabit univalve shells, carrying this habitation about with them, and changing it for a larger one as they increase in size.

HERNIA (*Latin*, a rupture, a burst, a descent; a tumour formed by the displacement of a soft part, which protrudes by a natural or accidental opening, from the cavity in which it is contained. The three great cavities of the body are subject to these displacements. The brain, the heart, the lungs, and most of the abdominal viscera may become totally or partially displaced, and thus give rise to the formation of herniary tumours: displacements of the brain, and of the organs of the chest, are, however, extremely rare, and are, in general, the result or symptom of some other disease. Every part of the abdomen may become the seat of hernias; but they most commonly appear in the anterior and inferior region, which, being destitute, in a great measure, of fleshy fibres, and containing the natural openings, offers less resistance to the displacement of the viscera. They are most common in the groin, at the navel, more rarely in the vagina, at the interior and upper part of the thigh, and at its lower and posterior part. They have received different names, from their positions. All the abdominal viscera, with the exception of the duodenum, the pancreas and the kidneys, may form a hernia, but they are not all displaced with the same facility. The omentum and intestinal canal escape easily; but the stomach, the liver, and the spleen form hernias more rarely. Most of the viscera, when displaced, push the peritoneum forward before them: this membrane thus forms an envelope of the hernia, which is called the *herniary sack*. If the hernia, with its sack, can be entirely replaced, it is said to be reducible; if, from its size or other cause, it cannot be replaced, it is irreducible.

Among the predisposing causes of hernia, may be ranked any circumstances which diminish the resistance of the abdominal walls, whether natural or accidental; such as the defect of fleshy fibres, the weakening of the walls of the stomach by a former distension, as in pregnancy or the dropsy, or by an accident, as a wound. Any circumstance which tends to increase or relax the openings through which the vessels pass, as a violent extension of the body, long standing, &c., may have the same effect. Any prolongation of the viscera, which tends to bring them in contact with points at which they may protrude, and articles of dress which push the organs towards the weaker parts of the abdominal wall, (as corsets), may also produce the hernia. The efficient causes of the hernia are all circumstances which may break the equilibrium existing between the abdominal walls and the viscera, which react, and

mutually press upon each other. The simultaneous contraction of the abdominal muscles and of the diaphragm, which takes place on every violent effort, is one of the chief of these cases. Hence sneezing, coughing, leaping, playing on wind instruments, &c., may be the occasions of a hernia.

The symptoms of a hernia are the existence of a tumour or swelling at any point of the abdomen, but particularly towards the opening of the vessels. A reducible hernia is not a very troublesome disease, but may become so by acquiring an increase of size, and the strangulation to which it is liable. A hernia is said to be strangulated, when it is not only irreducible, but also subjected to a continual constriction, which may become fatal; this constriction may be produced by different causes, but it is generally produced by the opening through which the hernia protrudes. As soon as a patient perceives that he is affected with a hernia, he should have recourse to medical advice, for the disease is then in its most favourable state for treatment. The hernia is immediately reduced, and must then be subjected to a constant compression. This is done by means of the truss. (See *Truss*.) An irreducible hernia must be supported with great care. All violent exercises, and excess in diet, must be avoided. The strangulated hernia, presenting greater danger, requires more prompt relief. The object of treatment is to relieve the constriction. If the reduction cannot be effected by other means, an operation will be necessary. This consists in dividing the parts which produce the constriction. The longer this operation is delayed, the more dangerous it will become. After the parts are healed, the opening must be subject to compression, as in the case of a simple hernia.

HERO; a priestess of Venus at Sestos, on the coast of Thrace. The loves of Hero and Leander, a youth of Abydos, situated on the other side of the Hellespont, are related in a poem which bears the name of *Musæus*. Hero and Leander saw each other at a festival in honour of Venus and Adonis, at Sestos, at which many of the people of Abydos were present, and immediately became enamoured of each other. Favoured by the darkness of the approaching night, Leander stole into the temple, and confessed his flame to the blushing maid. But the relations of Hero, and her sacred office, opposed the union of the lovers. No difficulties, however, could discourage Leander. He swam every night across the Hellespont to his mistress, guided by a torch which shone across the strait from the tower of Hero. Leander continued his visits during the stormy season of winter. On one occasion, however, his strength failed him, and the waves carried his lifeless body to the foot of the tower, where Hero anxiously awaited him. Overcome with anguish at the sight, she threw herself from the tower on the corpse of her lover, and perished.

HEROD THE GREAT (so called from his power and talents), king of the Jews. He was a native of Ascalon, in Judea, where he was born B. C. 71, being the second son of Antipater, the Idumean, who appointed him to the government of Galilee. He at first embraced the party of Brutus and Cassius, but, after their death, reconciled himself to Antony, by whose interest he was first named tetrarch, and afterwards king of Judea. After the battle of Actium, he so successfully paid his court to the victor, that Augustus confirmed him in his kingdom; and, on all occasions, his abilities as a politician and commander were conspicuous; but his passions were fierce and ungovernable. Although married to the celebrated Mariamne, a princess of the Asmonean family, her brother Aristobulus and venerable grandfather Hyrcanus fell victims to his jealousy of the ancient pretensions of their race. His very love of Mariamne herself, mingled as it was with the most fearful jealousy, terminated in her execution; and his repentance and keen remorse at her death, only exasperated him to further outrages against her surviving relations, her mother, Alexandria, and many more falling victims to his savage cruelty. His own sons by Mariamne, Alexander and Aristobulus, whose indignation at the treatment of their mother, seems to have led them into some intrigues against his authority, were also sacrificed in his anger; and their deaths crowned the domestic barbarity of Herod. It was the latter event which induced Augustus to observe, that it was better to be Herod's hog than his son. He rebuilt the temple at Jerusalem with great magnificence, and erected a stately theatre and amphitheatre in that city, in which he celebrated games in honour of Augustus, to the great displeasure of the more zealous of the Jews. He also rebuilt Samaria, which he called *Sebaste*, and adorned it with very sumptuous edifices. He likewise, for his security, constructed many strong fortresses throughout Judea, the principal of which he termed *Cæsarea*, after the emperor. On his palace, near the temple of Jerusalem, he lavished the most costly materials, and his residence of Herodium, at some distance from the capital, by the beauty of its situation, drew around it the population of a great city. Such indeed was his magnificence, that Augustus said his soul was too great for his kingdom. The birth of Jesus Christ took place in the thirty-third year of the reign of Herod, which important event was followed in a year or two by his death, of a languishing and loathsome disease, at the age of sixty-eight. According to Josephus, he planned a scene of posthumous cruelty, which could have been conceived only by the hardest and most depraved heart. Having summoned the chief persons among the Jews to Jericho, he caused them to be shut up in the circus, and gave strict orders to his sister Salome, to have them massacred at his death, that every great family might weep for him; which savage order was not executed. Herod was the first who shook the foundation of the Jewish government, by dissolving the national council, and appointing the high priests, and removing them at pleasure, without regard to the laws of succession. His policy, ability, and influence with Augustus, however, gave a great temporary splendour to the Jewish nation.

HEROD ANTIPAS, son of Herod the Great, by his fifth wife, Cleopatra, was appointed tetrarch of Galilee on his death. This was the Herod who put to death St John the Baptist, in compliment to his wife Herodias, in revenge for his reproaches of their incestuous union; Herodias having been united to, and forcibly taken away from, his brother Aretas. The ambition of Herodias stimulated her husband to a measure which proved his ruin. His nephew Agrippa, having obtained royal honours from Caligula, she induced Herod to visit Rome to request the same favour, where he was met by an accusation, on the part of Agrippa, of having been concerned in the conspiracy of Sejanus, and of being in secret league with the king of Parthia. This accusation being credited, he was stripped of his dominions, and sent with his wife into exile at Lyons, or, as some say, to Spain, where he died, after possessing his tetrarchy for forty-three years.

HEROD AGRIPPA, son of Aristobulus by Berenice, daughter of Herod the Great, and nephew to the preceding, was partly educated at Rome with Drusus, the son of Tiberius, on whose death he left Rome with a dilapidated fortune; but he returned some years after, and, being suspected of an attachment to Caligula, was imprisoned by Tiberius. This

apparent misfortune proved the source of his future prosperity; for, on the accession of Caligula, he was not only rewarded with a golden chain, as heavy as the iron one which had bound him, but was honoured with the title of king, and received the tetrarchy of his disgraced uncle, and all the dominions of Herod the Great. It was this Herod who, to please the Jews, caused St James to be put to death, and St Peter to be imprisoned. His power and opulence acquired him a great reputation, and, in a grand audience at Cæsarea, having made an oration to some deputies from Tyre and Sidon, he was hailed by his obsequious train as one who spoke like a god. His satisfaction at this flattery was soon after reproved by a violent disorder in his bowels, which carried him off in the forty-fourth year of his age, and seventh of his reign.

HEROD AGRIPPA II., son of the preceding, being too young to govern, Judea was, on his father's death, reduced to a Roman province. He subsequently received the kingdom of Chalcis, and obtained the superintendency of the temple and sacred utensils at Jerusalem, together with the nomination of the high priests. He resided much at Jerusalem, and here, together with his sister Berenice, heard the defence of Paul, addressed to the Roman governor Festus. Being driven from Jerusalem in the revolt which proved so fatal to the Jews, he joined Cestius, the Roman commander, and, when Vespasian was sent into the province, met him with a considerable reinforcement. During the siege of Jerusalem, he was very serviceable to Titus, and, after its reduction, he and Berenice, (with whom he was suspected to have an incestuous intercourse) returned to Rome. He is supposed to have died there, A. D. 94, and in him terminated the Herodian line and family.

HERODES ATTICUS, Tiberius Claudius (from Marathon, his birthplace, frequently called *Marathonius*), was descended from Cecrops, and distinguished for his wealth and brilliant accomplishments. He was born in the reign of Adrian, and held several public offices under the Antonines. A. D. 143, he was appointed *eponymos* of Athens, and died, probably, after the year 180. The ruins of an *odæon* at Athens, which Pausanias preferred to every other, on account of its size and beauty (*Paus. VII.*, 20), is the only remnant of all the public buildings, baths, canals, statues, &c., with which Herodes Atticus beautified Italy, Greece, and Asia. This *odæon*, of which the ruins prove the taste of its founder, was consecrated to the memory of Annia Regilla, a Roman lady, and the wife of Herodes, whose death he was accused of having hastened by unkindness. Another place, a short distance from Rome, in the Appian Way, he dedicated to the same object. It was an extensive garden, containing several temples and the sepulchre of his family; which, to give it a more sacred character, Herodes called *Triopium*, from Triopas, the father of Eresichthon. A statue of Regilla contains an inscription, which has excited the attention of the learned, particularly, in recent times, of Visconti, Eichstadt, and Fr. Jacobs. It was probably written by Marcellus Sidetes, and an excellent translation is giving by Fr. Jacobs, in his *Leben und Kunst der Alten*, 1st vol. The mourning of Herodes for Regilla, which must have been mingled with self-reproach, was remarkable. Even his house seemed to share his grief. To cherish his melancholy, he overlaid all the bright colours with dark Lesbian marble. Of the oratorical talents of Herodes, which procured for him the flattering titles of the *tongue of the Greeks* and the *king of eloquence*, only one monument remains to us. It is a sophistical declamation On the State, last printed by Fiorillo. It by no means equals his fame. In the market-place of Tenedos, some modern travellers found the marble coffin of Herodes's mother, used as the cover of a spring; the inscription was given by Clarke. This is omitted in the work of Fiorillo, *Herodis Attici, qua supersunt, adnotat. illust.* (Remains of Herodes Atticus, illustrated with Notes), Leipsic, 1801.

HERODIAN; a Greek historian, who held several public offices at Rome, and lived till some time after the year A. D. 238. His history is written in Greek, and comprises the period from the death of Marcus Aurelius to the year above-mentioned. It is in eight books, without chronological data, but written in a pure and dignified style, in a spirit of independence and impartiality. A valuable critical edition was published by Irmisch (Leipsic, 1789–1805); and a manual edition, by Wolf (Halle, 179[illegible]). He has often been confounded with Herodian of Alexandria, who died A. D. 180.

HERODOTUS, the oldest Greek historian, whose works have come down to us, was born at Halicarnassus in Caria, in the fourth year of the seventy-third Olympiad, B. C. 484. If by the title *father of history*, which has been bestowed upon him by the general consent, be meant that he was the first who wrote history in a more elevated manner (or, according to Cicero, *historiam ornavit*), he fully deserves that title. Many authors, some of them with success, had entered this difficult career before him. Hellanicus of Lesbos, Charon of Lampsacus, and Dionysius of Miletus, had even, in a great measure, anticipated Herodotus in the subject of his work. His love of learning was early enkindled by his youthful studies, and by examples in his own family. The celebrated epic poet, Panyasis, who was regarded by several ancient critics as inferior only to Homer, was his uncle. His genius was animated by the works of the writers just mentioned: they excited in him the desire to visit the countries which were described in such glowing colours, and his circumstances permitted him to gratify his inclinations. Whether he had conceived the plan of his history, in which the results of his travels are preserved, before his long journey, is uncertain. Egypt, so celebrated for the wisdom of its institutions, seems to have been one of the most constant subjects of his attention. This country had long been rendered inaccessible to the rest of the world, by the jealousy of its rulers, and the prejudices of its inhabitants against foreigners. But a short time before Herodotus commenced his travels, it had been opened to the Greeks; and, although it was then almost entirely unknown, and every part of it has since been examined by crowds of travellers, and described in almost every language, yet no author, ancient or modern, has given so accurate and instructive an account of it as Herodotus. He did not content himself with a knowledge of places; he investigated, likewise, the productions of the soil, the manners, customs, and religion of the people, the history of the last princes who reigned before the conquest of the country by the Persians, and many interesting particulars concerning the conquest itself. The second book of his history, which is devoted to the description of Egypt, is still our richest store of information, concerning its ancient history and geography. From Egypt he proceeded to Libya, concerning which he collected a mass of information equally new to his contemporaries, and valuable to us. His description of the country, from the frontiers of Egypt to the straits of Gibraltar, is so consonant with the accounts of the most intelligent travellers, in particular of doctor Shaw, that we cannot for a moment believe it founded on the relations of others. He asserts himself, that he resided some time in Tyre. He visited the coasts of Palestine, and thence continued his route to Babylon, then opulent

and flourishing. His visit to Assyria has been doubted; but if we consider the different passages of his description of Babylon, we must be convinced that none but an eye-witness could have given so exact an account of that great city and of the manners of the inhabitants. Having arrived in Scythia, then little known to the Greeks, although the primitive inhabitants of Greece were from that country, he penetrated into its immense wilds by the routes which had recently been opened by the Grecian colonies on the Euxine, and thence passing through the Getæ into Thrace and Macedonia, he reached Greece by the way of Epirus. Herodotus expected to find at home that honour which was due to his labours, and leisure to arrange the information which he had collected. But Lygdamis, who had usurped the supreme authority in Halicarnassus, and put to death the noblest citizens, among others, Panyasis, forced him to seek an asylum in the island of Samos.

Here, in quiet retirement, he wrote the first books of his history; in which, abandoning the Doric dialect of his own country, he employed the Ionic, which was spoken in the island of Samos. This labour, however, did not so entirely occupy him, as to prevent him from concerting plans for the relief of his oppressed country and the expulsion of the tyrant. Having formed a conspiracy with several exiles who entertained similar sentiments with himself, he returned to Halicarnassus, and drove out the usurper, but without much advantage to his country. The nobles who had acted with him, immediately formed an aristocracy, more oppressive to Halicarnassus than the arbitrary government of the banished tyrant. Herodotus became odious to the people, who regarded him as the author of their aggravated sufferings, and to the nobles, whose proceedings he opposed, so that, bidding an eternal farewell to his unhappy country, he embarked for Greece. He arrived at the time of the celebration of the eighty-first Olympiad, when the noblest spirits, from every corner of Greece, were collected at Olympia. In the presence of the assembled multitudes, he read the beginning of his history, and such extracts as were peculiarly calculated to kindle the enthusiasm and to flatter the pride of his countrymen. His success was complete. His animated description of the contest of the Greeks with the Persians, and of the triumph of liberty over despotism, was received with universal applause. But the influence of his recitation was not limited to this deep impression upon a whole nation. Thucydides, then scarcely fifteen years of age, was present at the Olympian games. He shed tears of admiration, as he looked upon him to whom all eyes were directed. Herodotus perceived it, and ventured to foretell to his father the brilliant destiny which awaited him.

Encouraged by the applause which he received, Herodotus devoted the twelve following years to the completion of his work: he travelled over all the countries of Greece: he collected accounts of the most important affairs from the archives of every nation, and corrected from the original documents the genealogies of the most distinguished families. While travelling through Greece, he probably read, in the public assemblies of each people, those portions of his history which most nearly concerned it, not merely to elicit their applause, but to obtain useful information. The assertion of Dio Chrysostom, that Herodotus, having read before the Corinthians a description of the battle of Salamis, highly flattering to their pride, and having been refused the reward he had demanded, wrote another account, misrepresenting things in a wholly different light, is unworthy of credit. Twelve years after his first recitation at Olympia, he read his work, then probably just completed, at the festival of the Panathenæa B. C. 444. The Athenians did not limit their gratitude to empty praise; they bestowed on the author, who had so well described the achievements of their countrymen, the sum of ten talents (about 10,000 dollars). Herodotus, however, did not remain in Athens; he attached himself to a colony, which the Athenians founded some years after at Thurium, in Italy, near the ruins of the ancient Sybaris. His long residence there led several ancient writers to suppose this was his native city. He devoted his leisure to the revision and extension of his history, and probably died at Thurium, at an advanced age.

Herodotus, in ancient times, was attacked by jealous critics, who impeached the credibility of his work. But time and the most careful investigation have completely refuted their attacks. The history of Herodotus is one of the most valuable monuments of antiquity which has come down to us. It consists of nine books, which were early distinguished by the names of the *nine muses*. From the travels of Herodotus, before he commenced his work, from the laborious researches in which he engaged, for the purpose of collecting materials, we may infer that he conceived an elevated idea of the duty of a historian, and how much more important he considered it to be impartial and correct, than interesting and eloquent. When he relates any occurrence of which he doubts the truth, he honestly expresses his doubts. He has been accused of credulity; but we ought to be thankful to him for having preserved a crowd of traditions, which, however marvellous they may be, are characteristic of the genius of antiquity. We are indebted to him alone for the history of the origin and growth of the Persian monarchy, and of those of the earlier Medes and Assyrians. The origin of the kingdom of Lydia; its destruction by Cyrus, and the different expeditions of that celebrated conqueror; the conquest of Egypt by Cambyses, and the most minute and exact description of that country and its inhabitants; the constant wars of the successors of Cyrus; and, particularly, the expedition of Darius against the Scythians, which leads the author to a highly instructive and faithful account of all the people then known in the north of Europe and Asia;—these are the principal topics of his introduction to the history of the war between the Greeks and Persians. This war, so rich in great events and great characters, in the course of which the powers and defects of the most illustrious nations of antiquity were strongly developed—all this is united in one of the most magnificent and masterly pictures which the human mind has ever conceived. The style and execution of the work excited the admiration of the ablest critics of antiquity; and we also, although to us so many charms are necessarily lost, are powerfully struck with a style so full of nobleness and grace, of energy and simplicity. Besides this history, there is also a life of Homer, attributed to Herodotus, which is valuable, and which was generally regarded as genuine, by the ancients. Most modern critics, however, agree that he was not the author of it.

The best editions of the history of Herodotus, are by Wesseling (Amst. 1763, folio), and Schweighauser (Strasburg, 1816, 6 vols.) The work has been translated into German, by Degen, Jacobi, and Lange. The works of Larcher, Volney, Bottiger, Heyne, and Creuzer (*Commentat. Herod.* Leipsic, 1819), on Herodotus, are very valuable; translated into French by Larcher, into English by Beloe. Rennell's Geography of Herodotus (London, 1800) is a very important work.

HEROES; a name applied by the Greeks to persons of the earlier periods, who were distin-

guished for wisdom, strength, or courage. They formed an intermediate link between men and gods. They were demigods, whose mortal nature only was destroyed by death, while the immortal ascended to the gods. In mythology, these demigods are styled *heroes* in a peculiar sense. The heroic age of Greece terminated with the return of the Heraclidæ into the Peloponnesus (B. C. 1100), and forms the transition from the brazen to the iron age. We find the following heroic races: 1. the *Prometheides*, from Prometheus, called also the *Deucalionides*, from Deucalion; 2. the *Inachides*, from Inachus; 3. the *Agenorides*, from Agenor; 4. the *Danaides*, from Danaus; 5. the *Pelopides*, or *Tantalides*, from Pelops or Tantalus; 6. the *Cecropides*, from Cecrops. Individual families, as, for instance, the *Æacidæ*, *Persidæ*, *Atridæ*, *Heraclidæ*, belong to one or another of these races. The heroic age is the age of romantic courage, of adventure and wonders. The heroes are distinguished into those who flourished before the Argonautic expedition, and those who flourished after it. The most distinguished among the latter are the heroes of the Trojan war. Those of the former class are more illustrious than those of the latter; for the remoter events afforded greater scope for the embellishments of the imagination. The heroic age, therefore, properly ends where the poetical traditions of history cease. But the later heroes, removed by time to a greater distance, survived in poetry, and became clothed with godlike attributes; yet hardly any of them received the same homage which was paid to the earlier race. Great sacrifices were not offered to the heroes, as they were to the Olympian deities; but groves were consecrated to them, and libations poured out on their sepulchres. According to Plutarch, the Greeks worshipped the gods on the day of the new moon, and the heroes on the day after, and the second cup was always mingled in honour of them. The residence assigned to them after death is different. Bacchus, Hercules, Pollux, and some others, entered the abodes of the eternal gods; others inhabited the islands of the blest; and others were placed among the constellations. The ideas relative to this part of the heroic history, however, have continually varied. The *heroes* of the Greeks corresponded to the *lares* of the Romans.

HEROICAL EPISTLE, or HEROID; a lyric poem in the epistolary form, supposed to contain the sentiments of some hero or heroine of history or fable, on some interesting occasion. Ovid is considered as the author of this kind of poetry, and, from his productions, some critics have asserted that the heroid belongs to the elegy. But though it may breathe elegiac feeling, it may also adopt the high tragic tone, as in Pope's Epistle of Eloisa to Abelard. No nation has more works of this sort than the French; among whom Colardeau, Blin de St More, Dorat, Pesay, Laharpe, deserve particular consideration.

HERON (*ardea*, L.). This tribe of birds is very numerous, and is almost universally spread over the globe. It is distinguished by having a long bill, cleft beneath the eyes, a compressed body, long slender legs, and moderate wings. The tail is short, rounded, and composed of ten or twelve feathers. They are dull, inanimate birds, and are generally seen either perched on trees near the water, or wading in search of food. They feed exclusively on animals, particularly fish and reptiles. The common heron of Europe (*A. major*) is about three feet two inches in length, and five feet three inches in breadth from tip to tip; the body is exceedingly small, weighing scarcely more than three pounds and a half. It always has a lean and starved look, and, according to Buffon, presents the image of suffering anxiety and indigence. From this appearance of the bird, the ancients drew some curious inferences; thus Pliny says, "*Hi in coitu angustur. Mares quidem, cum vociferatu sanguinem etiam ex oculis profundunt.*"—This assertion, as might be supposed, is wholly without foundation. Though in times of frost and scarcity, herons can exist for a long time with a very scanty supply of food, in favourable weather they gorge themselves with insatiable voracity. They are very expert fishers, and take prey either by wading after it where the water is shallow, or by diving from the air, when the object of their pursuit appears near the surface of the water. They digest an enormous load of food in a short time, and again return to their destructive occupation with new vigour and appetite. Willoughby asserts, that a single heron will destroy 15,000 carp in half a year. Notwithstanding their size and powerful beak, herons will fly from the smallest of the falcon tribe. The flesh of the young heron was formerly a dish in high repute. The most remarkable of the European herons are the egrets (*A. alba*, which is found in America, and *A. gazetta*). These are distinguished by a large bunch of soft feathers rising from the shoulders, and hanging down over the back and sides. These feathers were formerly worn by knights in their helmets, and still form a decoration for ladies' headdresses. In general habits, the American species closely resemble those of Europe. They are dull birds, and generally to be seen sitting on trees in the neighbourhood of water. They build socially on high trees, laying about four eggs. All the species fly gracefully, with the neck bent backwards, and the head resting against the back. The females resemble the males. The young differ from the adult, not obtaining their full plumage until after the third year. They moult annually, when the long slender feathers are also shed, and not renewed for some time.

HEROSTRATUS, or ERATOSTRATUS; a citizen of Ephesus, who set fire to the splendid temple of Diana, between the city and the port of Ephesus, in order to transmit his name to posterity. Nothing but the walls and a few columns of this exquisite piece of architecture were left standing. The roof and all the ornaments in the interior were totally destroyed. The incendiary expiated his crime by a miserable death. The assembly of the Ionians ordained that the name of Herostratus should be consigned to eternal oblivion. But this decree served to perpetuate his memory; and Theopompus, in his history of Greece, satisfied the wishes of the incendiary. Alexander the Great was born on the night of this conflagration.

HERRERA TORDESILLAS, ANTONIO DE; a Spanish historian, whose father's name was Tordesillas, but who adopted that of Herrera, from his mother. He was born at Cuellar, in Segovia, in 1559. After finishing his education, he went to Italy, when about twenty years old, and became secretary to Vespasiano Gonzaga, brother to the duke of Mantua, and went back with him to Spain, when Gonzaga became viceroy of Navarre and Valencia. The latter recommended him in his will to Philip II. of Spain, and Herrera was appointed *cronista mayor de las Indias*, and retained that post under Philip II. III. and IV. He died in 1625, having been made, shortly before his death, member of the council of Philip IV. His works are all written in Spanish. Nicolas Antonio mentions ten of a historical nature. His principal work is *Historia general de los Hechos de los Castellanos en las Islas y Tierra Firme del Mar Oceano* (first edit. 1601, also 1615, folio). It gives the history of the discoveries from 1492 to 1553. It is dedicated to Philip III., who had ordered it to be written. Herrera states in the beginning, that his object is to clear the character of his countrymen

from the imputations cast on them for their conduct on this continent. Herrera's character as a historian does not rise in our esteem, when we hear him, in his *Historia general del Mundo*, describe the death of Philip II. in the words, *Y así acabó este gran monarca con la misma prudencia con que vivió, por lo qual meritamente se le dio el attributo de prudente.*

HERRERA, Hernando de, a distinguished Spanish poet, born at Seville, in the beginning of the sixteenth century. His contemporaries called him *el divino*. Like the other poets of his age, Herrera formed himself on the Romans, Greeks, and Italians. Many of his poems are amatory, and in his odes he often rises to an elevated strain, and they are perhaps inferior in fire only to those of Luis de Leon. Velasquez blames his excessive polish. Francisco Pacheco, one of his admirers, published *Obras en Verso de Hérnando de Herrera* (Seville, 1582). There is another edition of his poems, by G. R. Vejerano (Seville, 1619, 4to), both very rare. By the preface to the latter edition, we see that Herrera was the author of several other productions, which are lost. He was also a prose writer and historian. Cervantes' opinion of this poet is to be found in his *Canto de Caliope*. Lope de Vega speaks of him in high terms in his *Laurel de Apolo*. Herrera's exterior was pleasing, his disposition mild and engaging. He is said, though against all probability, to have been present at the battle of Lepanto. See *Parnaso Espanol*, vol. 7th.

HERRING. There are many species of the genus *clupea*, known under the name of herring (See *Ichthyology*; but the *clupea harengus* is that which frequents our coasts in such numbers, and which furnishes so important an article of food to so many inhabitants.

Herrings are found from the highest northern latitudes yet known, as low as the northern coasts of France. They are met with in vast shoals on the coast of America, as low as Carolina. In Chesapeak Bay is an annual inundation of those fish, which cover the shore in such quantities, as to become a nuisance. We find them again in the seas of Kamtschatka; and probably they reach Japan. The great winter rendezvous of the herring is within the Arctic circle: there they continue for many months, in order to recruit themselves after the fatigue of spawning; the seas within that space swarming with insect food in a far greater degree than those of our warmer latitudes. This mighty army begins to put itself in motion in spring. They begin to appear off the Shetland Isles in April and May. These are only the forerunners of the grand shoal, which comes in June; and their appearance is marked by certain signs, such as the number of birds, like gannets and others, which follow to prey on them: but when the main body approaches, its breadth and depth is such as to alter the appearance of the very ocean. It is divided into distinct columns of five or six miles in length, and three or four in breadth; and they drive the water before them with a kind of rippling. Sometimes they sink for the space of ten or fifteen minutes, and then rise again to the surface; and in fine weather reflect a variety of splendid colours, like a field of the most precious gems.

The first check this army meets in its march southward, is from the Shetland Isles, which divide it into two parts; one wing takes to the east, the other to the western shores of Great Britain, and fill every bay and creek with their numbers: the former proceed towards Yarmouth, the great and ancient mart of herrings; they then pass through the British Channel, and after that in a manner disappear. Those which take towards the west, after offering themselves to the Hebrides, where the great stationary fishery is, proceed to the north of Ireland, where they meet with a second interruption, and are obliged to make a second division: the one takes to the western side, and is scarcely perceived, being soon lost in the immensity of the Atlantic; but the other, that passes into the Irish sea, rejoices and feeds the inhabitants of most of the coasts that border on it. These brigades, as we may call them, which are thus separated from the greater columns, are often capricious in their motions, and do not show an invariable attachment to their haunts.

This instinct of migration was given to the herrings, that they might deposit their spawn in warmer seas, that would mature and vivify it more assuredly than those of the frozen zone. It is not from defect of food that they set themselves in motion; for they come to us full of fat, and on their return are almost universally observed to be lean and miserable. What their food is near the pole, we are not yet informed; but in our seas they feed much on the *oniscus marinus*, a crustaceous insect, and sometimes on their own fry.

They are full of roe in the end of June, and continue in perfection till the beginning of winter, when they deposit their spawn. The young herrings begin to approach the shores in July and August, and are then from half an inch to two inches long. Though we have no particular authority for it, yet, as very few young herrings are found in our seas during winter, it seems most certain that they must return to their parental haunts beneath the ice. Some of the old herrings continue on our coasts the whole year.—*Pennant's British Zoology.*

The herring was unknown to the ancients, being rarely, if ever, found within the Mediterranean. The Dutch are said to have engaged in the fishery in 1164. The invention of pickling or salting herrings is ascribed to one Beukels, or Beukelson, of Biervliet, near Sluys, who died in 1397. The emperor Charles V. visited his grave, and ordered a magnificent tomb to be erected to his memory. Since this early period, the Dutch have uniformly maintained their ascendancy in the herring fishery; but, owing to the Reformation, and the relaxed observance of Lent in catholic countries, the demand for herrings upon the Continent is now far less than in the fourteenth and fifteenth centuries.

HERRICK, Robert; an English poet of the seventeenth century, a native of London, educated at Cambridge. He took orders in the church of England. In common with many others of the Episcopal clergy, he suffered deprivation under the government of Cromwell; but he recovered his benefice after the restoration of Charles II., in 1660, which period he did not long survive. His compositions were published in 1648, under the title of Hesperides, or the Works, both Human and Divine of Robert Herrick (8vo). A selection from these poems, with an account of the author, by doctor Nott, was printed at Bristol in 1810; and a complete edition at Edinburgh, in 1823 (2 vols., 8vo). Doctor Drake, in his Literary Hours, has given specimens of his productions, which show that he does not deserve the comparative oblivion in which he has been involved.

HERRNHUT; a town of Saxony, in Upper Lusatia, six miles south of Lobau, and the same distance north of Zittau. Population, 1500. It is situated at the foot of Hutberg mountain, and is 1054 feet above the level of the sea. It was built by count Zinzendorf, in 1722, for the use of the Moravian Brethren, and it afterwards became the metropolis and centre of that sect of Christians, who, from this town, are often called *Herrnhutters*. (See *United Brethren.*) It has a great variety of manufactures. The objects of curiosity are the observatory and the burial-

ground on a neighbouring hill, resembling a garden, and called by the Brethren, *Garden of Peace*.

HERSCHEL, Sir WILLIAM; a distinguished astronomer; son of a musician of Hanover; born November 15, 1738. Being destined by his father for his own profession, he was placed, at the age of fourteen, in the band of the Hanoverian foot-guards. He went to England in 1757, and was employed in the formation of a military band, and in conducting several concerts, oratorios, &c. Although enthusiastically fond of music, he had for some time devoted his leisure hours to the study of mathematics and astronomy; and, being dissatisfied with the only telescopes within his reach, he set about constructing one for himself, in which arduous undertaking he succeeded, having, in 1774, finished an excellent reflecting instrument of five feet with his own hands. Encouraged by his success, he proceeded to complete larger telescopes, and soon constructed a seven, a ten, and a twenty-feet reflector, having, in the latter case, finished nearly two hundred object-mirrors before he could satisfy himself. From this period he gradually withdrew from his professional engagements. Late in 1779, he began a regular survey of the heavens, star by star, with a seven feet reflector, and, after eighteen months' labour, discovered, March 13, 1781, a new primary planet, which he named the *Georgium Sidus*. George III., by the settlement of a salary upon him, enabled him to devote the rest of his life to astronomy. At Slough, he commenced the erection of a telescope of the enormous dimensions of forty feet, and completed it in 1787. Its diameter was four and a half feet, and it weighed 2118 pounds. With this powerful instrument, he continued to prosecute his discoveries, regularly communicating the results to the royal society, till the year 1818. In 1783, he had discovered a volcanic mountain in the moon, and, from farther observations made with his large instrument, in 1787, two others were distinguished, emitting fire. He also ascertained that the Georgium Sidus was surrounded with rings, and had six satellites, and acquired far more knowledge of the appearance, satellites, &c., of Saturn, than had before existed. The four new planets discovered by Piazzi, Olbers, and Harding—Ceres, Pallas, Juno, and Vesta—he observed with his usual accuracy. He fixed their diameter, which Schroter had determined to be from one to four seconds, at less than one second, and made an ingenious hypothesis, in respect to their nature and formation. (See *Planets*.) He ascertained also the important fact, that Saturn's ring revolves in ten hours thirty-two minutes. He was constantly engaged in determining the orbits and physical constitution of individual stars; in fixing their relative positions to one another, and to the Milky Way; in ascertaining the greatest possible distance of distinct vision with the aid of the best instruments. An account of most of his labours is found in the Philosophical Transactions and other English periodicals; but some of them are still unprinted. Herschel received much assistance in making and recording observations from his sister Caroline; and this lady herself discovered several comets. In 1802, he laid before the royal society a catalogue of 5000 new nebulæ, nebulous stars, planetary nebulæ, and clusters of stars which he had discovered, and, in consequence of the important additions made by him to the stock of astronomical knowledge, received from the university of Oxford the honorary degree of doctor of laws—an honour which was followed up, in 1816, by the Guelphic order of knighthood from the king. He continued his astronomical observations till within a few years of his death, which took place at Slough; and he was buried at Upton, Berks, in August, 1822. His son, John F. W. Herschel, has distinguished himself by his skill in mathematics and natural philosophy.

Herschel's gigantic telescope, of forty feet focus, is capable of being moved in any direction, by machinery, which turns on a vertical axis. He found with it the time of Saturn's rotation; and his observations agree with the results at which Laplace arrived by a mathematical analysis deduced from the laws of gravitation. He discovered, likewise, that this singular planet revolves upon an axis perpendicular to the plane of its orbit. From observations made with his large telescope, he concluded that light does not come directly from the body of the sun, but from very bright, phosphorescent clouds, formed in the sun's atmosphere. The discovery of Arago, that the sun's rays are not polarised, confirmed the opinion of Herschel. Moreover, he found that the red rays in a beam of light give out more heat than the other six rays together.

HERTFORD COLLEGE; an establishment of the East India company, at Hertford, England, for affording instruction in the languages, laws, and customs of the East Indies, to persons intended for the service of the company.

HERTHA, JORD, JOARD, in Scandinavian mythology; the goddess Earth, the mother and preserver of things (Cybele). She was the daughter of Night and Anar, sister of Dagur or Day, wife of Odin, and mother of Thor, or the god of thunder. She is the same with Frigga. In a sacred grove on an island in the Baltic was her sanctuary. When her chariot was drawn through the land, all enmities ceased—festivals began. When the chariot returned, it was washed in a sacred lake, by slaves who were then drowned in its mysterious waters, because they had seen the holy secrets of the goddess. The island of Rugen is supposed to have been the holy island; and a small lake, called *Burgsee*, surrounded by beautiful trees, is shown there as the supposed lake.

HERTZBERG, EWALD FREDERIC, count of, a statesman whose name is intimately connected with the history of Frederic the Great, was born in 1725, at Lottin in Pomerania, and died May 25, 1795, after having been in the public service almost half a century. He studied at Halle, and afterwards received an appointment in the department of foreign affairs. In 1742, Frederic appointed him counsellor of legation, that prince having become acquainted with his talents by the assistance which Hertsberg had rendered him in making extracts from the archives for Frederic's *Mémoires pour servir à l'Histoire de Brandenbourg*. In 1756, he wrote, in eight days, the famous *Mémoire raisonné* in Latin, German, and French, from Austrian and Saxon papers found in archives in Dresden, the object of which was to justify Frederic's invasion of Saxony. In 1762, he concluded the treaty of Hubertsburg, on which occasion Frederic received him with the remarkable encomium, *Vous avez fait la paix, comme j'ai fait la guerre, un contre plusieurs*. The king then made him minister of foreign affairs. The first partition of Poland was to be made in 1772; and, as the Prussians maintained that it would have taken place without Prussia's participation, she thought it expedient to acquire West Prussia for her own defence; and Hertzberg exerted himself with great zeal to effect this object. He was also very active in the conclusion of the Furstenbund, in 1785, to oppose the designs of Austria on Bavaria. (See his second vol. of *Recueil des Déductions, Manifestes, Déclarations, Traités et autres Actes, qui ont été rédigés, et publiés pour la Cour de Prusse*.) During the last days of Frederic, Hertzberg was one of the few whom the king used to see daily in the *Sans Souci*. Under Frederic's successor he retired

the troubles in Holland, and laboured to promote the balance of power in Europe. But his influence gradually diminished, and, in 1791, he asked permission to retire, which was refused, though he was relieved of some of his offices. He now confined himself almost entirely to the superintendence of the academy and the cultivation of silk. When the second partition of Poland took place, in 1793, and the politics of Prussia, by her participation in the coalition against France, had placed her in a critical situation, he again offered his services, in 1794. His offer was declined, and, eleven months after, he died. The German literature and language received great attention from him—a circumstance the more deserving of mention, as Frederic utterly disregarded, or rather despised them. He improved the condition of the country schools, which had been much neglected. Besides the culture of silk, he devoted himself, in his retirement, to the improvement of the agriculture of his country.

HERVEY, James, a pious and popular divine of the church of England, was born at Hardingstone, near Northampton, in 1713, and was sent to Lincoln college, Oxford. Having taken orders, he retired, in 1736, to the curacy of Dummer, in Hampshire. In 1738, he quitted Dummer to reside at Stoke abbey, in Devonshire. During his residence in Devonshire, he planned his Meditations; and an excursion to Kilhampton, in Cornwall, occasioned him to lay the scene of his Meditations among the tombs in the church of that place. In 1743, he became curate to his father, then possessing the living of Weston Favell, and, on the death of the latter, he succeeded him in his livings, both of Weston and Collingtree. He died in 1758, in the forty-fifth year of his age. The moral character of this conscientious divine was most exemplary; his temper was disinterested, placid, and humble, and in benevolence and charity he was surpassed by none with equally bounded means. The style of his writings is flowery; and hence his great popularity among readers who possess little refinement of taste. Besides his Meditations, he is the author of several other works, which are included in the genuine edition of his works, 6 vols., 8vo.

HESIOD; one of the oldest poets of Greece; a native of Cumæ in Æolia, a province of Asia Minor. While he was a boy, he left his native country and settled in Ascra, a village of Bœotia, at the foot of mount Helicon, whence he is called the *Ascræan*. According to some authorities, he practised, in Acarnania, the art of divination, which, especially in Bœotia, was closely connected with poetry. Others say he was a priest in the temple of the muses on mount Helicon: if this were the case, he might easily have practised both poetry and divination together. The latter part of his life he spent at Locris, and was at last murdered by two Locrians, who suspected him of unlawful intercourse with their sister. His body was thrown into the sea, and carried to the shore by dolphins. This led to the detection of the murderers, who were apprehended and punished. Such is the tradition; but little is known of Hesiod with certainty. Even the age in which he lived cannot be precisely determined. A very common tradition relates that, in a poetical contest with Homer, at Chalcis, he came off victorious. Herodotus calls him a contemporary of Homer, and says they lived 400 years before himself (about 900 B. C.). In his Works and Days (172), Hesiod says that he belonged to the period immediately following the Trojan war; but the passage is suspected by critics, and there are many reasons for supposing that he lived at a later period.

According to John Tzetzes, sixteen works have been attributed to Hesiod. Of thirteen we know only the titles; and our judgment of him must, of course, be formed solely on the three which remain. These are the Theogony, a collection of the oldest fables concerning the birth and achievements of the gods, arranged so as to form a connected whole. It is the most important and difficult of all his works. With this was probably connected the Catalogue of Women, to the fourth book of which, entitled the ἠοιαι μεγαλαι, the second fragment (the Shield of Hercules) must have belonged. It is evidently composed of two pieces, very different from each other, and which can hardly be regarded as the work of one author. Editions of it have been published by C. F. Heinrich (Breslau, 1802; and Bonn, 1819). The contents of the Theogony are borrowed from earlier cosmogonies and theogonies, and the traces of the manner in which it was composed are very evident: there is a difference in the mythology, which is sometimes rude and imperfectly developed, and sometimes more perfect and refined; and a difference in the narration, which is sometimes short and plain, and sometimes diffuse and elegant. The frequent repetitions of the same fable, with variations, led to many contradictions; the additions and interpolations by later writers destroyed the harmony of the style. (See Heyne, *De Theogonia ab Hesiodo condita*, in the *Comment. Soc. Reg. Gott.*, vol. 2, 1779; Wolfe's edition, Halle, 1783; *Letters on Homer and Hesiod*, by Hermann and Creuzer, 1817). The third fragment is a didactic poem, Works and Days,—in Greek and German, by J. D. Hartmann, accompanied with notes and illustrations by L. Wachler (Lemgo, 1792). It treats of agriculture, the choice of days, &c., with prudential precepts concerning education, domestic economy, navigation, &c. In this work, the only one, according to Pausanias, which the Bœotians acknowledged as the genuine production of Hesiod (except the first ten verses, which they rejected), we learn most of his life and character. He and his brother Perses lived with their father at Ascra, engaged in cultivating the soil and tending cattle. After the death of their father, the estate was divided between them; but unjust judges deprived the poet of half his share, and assigned it to his avaricious, and, at the same time, prodigal brother. Nothing remained for him to do but to husband carefully what remained; and he seems to have been a successful economist. His brother's property, on the contrary, was wasted by neglect and indolence, and lawsuits and corruption completed his ruin.

It is not to be denied that the work of Hesiod contains many repetitions, some of which are chargeable to the simplicity of the age when it was written, and others to the connexion of the several parts, which were not originally intended to form a single poem. The abruptness in the transitions is to be attributed to the same cause. It is difficult to contradict these judgments. If Hesiod be compared with Homer, he is found inferior in epic fulness. He is apt to crowd together things different in character, and to lean to a didactic style. The poetry is often overlaid by the reflections; and it is destitute of the fire and vigour which breathe in every part of Homer. If the poetry of each is regarded in reference to the degree of refinement of the age in which it was written, the notions of Hesiod are found to be similar to those of Homer. They are much alike in their estimation of vice and virtue; they equally insist on the practice of justice, the sacredness of an oath, and the laws of hospitality. Fear of the anger of Jove leads them both to forgive their enemies, but only in consideration of suitable satisfaction. But Hesiod's perpetual complaints of the rapacity of kings, and their unjust decisions, and his bitter reflections upon the female sex, have reference to a

state of society and manners later than that depicted in Homer, an intermediate state of transition from kingly to republican government, of which distinct traces are visible in his works.

The best editions of the works of Hesiod are those by Dan. Heinsius (1603, 4to); Robinson (Oxford, 1737, 4to); Losner (Leipsic, 1787; and Konigsberg, 1787). His complete works have been translated into German by H. Voss (Heidelb., 1806); into English by Cooke and Elton.—See treatise *On the Poems of Hesiod, their Origin and Connexion with the Poems of Homer*, by Thiersch (Munich, 1813, 4to).

HESPERIDES. Hesiod, in his Theogony, calls them the *children of night*, and describes them as living beyond the ocean, and guarding golden apples, and trees bearing golden fruit. According to others, they were the daughters of Atlas, or of Jupiter and Themis, or of Ceto and Phorcys. They were assisted in the charge of their garden by a dragon, which Hesiod calls *Ladon*. According to Apollonius, the names of the Hesperides were Hespera, Erytheis and Ægle; according to Apollodorus, Erytheia, Ægle, and Hestia Arethusa; according to Lutatius, Ægle, Arethusa, and Hesperis. The golden apples under their care were given by the Earth to Juno on her marriage, and afterwards adorned the gardens of the goddess. Hesiod places these gardens in an island of the ocean, to the west, and Pherecydes at the foot of the Hyperborean Atlas. It was the eleventh labour of Hercules (q. v.) to bring the golden apples of the Hesperides to Eurystheus. The hero killed the hundred-headed dragon, and the virgins fled; or, according to some, Atlas went to them, and procured the apples. The apples were carried to Eurystheus, who gave them to Hercules, and he afterwards gave them to Minerva. By this divinity they were restored to their former situation.

HESPERUS; the son or brother of Atlas, and a passionate lover of astronomy. He was persecuted by Atlas, and fled to Italy; whence the ancients called this country *Hesperia*. The nation paid him divine honours, and called the most beautiful star in the western sky, the evening star, or planet Venus, by his name. (See *Planets*.) Others say he was the son of Venus and Cephalus, and, on account of his beauty, received the name of his mother.

HESSE-CASSEL, or KURHESSEN; an electorate, member of the Germanic confederacy, in which it has the eighth place, and three votes in the general assembly. (See *Hessia*.) It contains 4430 square miles, with 602,700 inhabitants, in 62 cities and towns, thirty-three market-places, 1062 villages, &c.; 491,750 Protestants, mostly Calvinists, 100,000 Catholics, 8000 Jews, and 250 Menonnites. The electorate lies between 50° 7′ and 52° 26′ lat. N., and 8° 31′ and 11° 0′ lon. E. The surface is hilly, and in some parts mountainous; the soil not generally very fertile, except in the province of Hanau, where it is rich, and the climate kindly. The productions are grain, potatoes, some hemp, flax, tobacco, and vines. The pasturage is generally good, and wood abundant. The minerals are copper, silver, cobalt, iron, salt, vitriol, alum, pit coal, marble, and basalt. The principal rivers are the Werra, Fulda, Diemel, Maine, Edder, Kinzig, Schwalm, and Lahn. The university is at Marburg, and had 347 students in 1829. The electorate has five gymnasia, three seminaries for the education of schoolmasters, &c. Revenue, 4,500,000 guilders; public debt, 1,950,000. The form of government was absolute after the dissolution of the former antiquated estates.* The title of the monarch is, *elector, sovereign landgrave of Hessia, grand duke of Fulda, &c.* The present elector, William II., was born July 28, 1777, and succeeded his father in 1821. He is married to Augusta, sister to the reigning king of Prussia. He may be styled one of the worst rulers of the present age, and has carried his cruelty even to brutality. His son, a few years ago, was obliged to fly to the king of Prussia, because he would not allow the mistress of his father public honours at court. The father of the present elector was driven from his country by Napoleon, in 1806. Hesse then formed the main part of the kingdom of Westphalia. He lived in England, was reinstated in 1813, when he disowned all which had taken place from the time of his dethronement, and again introduced caning into the army, &c. His arbitrary refusal to acknowledge the sale of the domains during his absence, and his non-compliance with the decisions of the Germanic diet, and the admonitions of Austria and Prussia, respecting this subject, form an interesting subject in the modern history of Germany. Hesse-Cassel was created an electorate with Baden, Wurtemberg, and Salzburg, in 1802. (See *Electorate*.) It is the only electorate now existing; and, as there is no longer a German emperor, the title has no meaning as far as regards his election. The commerce of Hesse-Cassel is not unimportant. The peasant is poor, oppressed, and in a backward state. For Cassel, the capital, see *Cassel*.

HESSE-DARMSTADT (see *Hessia*), GRAND DUCHY OF; a member of the Germanic confederacy, containing 3900 square miles, with 781,900 inhabitants, of whom 393,000 are Lutherans, 120,000 Catholics, 170,000 Calvinists, 16,000 Jews, 1000 Menonites. It lies between 49° 22′ and 51° 4′ lat. N., and 8° 0′ and 10° 0′, lon. E. Standing army, 8421, of whom, however, more than half are on furlough. The university is at Giessen, and had, in 1829, 548 students. The revenue was, in 1827, 5,878,641 guilders; expenditure the same; debt, 13,973,625 guilders. The surface is generally hilly or mountainous; the soil in many parts poor, but in the valleys fertile, and pasturage generally good. The principal productions are grain, potatoes, flax, tobacco, fruits, and vegetables; and vines along the banks of the Rhine and Maine. It produces considerable iron, copper, lead, and salt. The climate is generally healthy, and the situation on the Rhine and Maine favourable to trade. In 1806, the landgrave of Hesse-Cassel became a member of the confederation of the Rhine, and, August 13 of the same year, he adopted the title of *grand duke*. In 1806, the old estates were abolished in Hesse-Darmstadt. May 18, 1820, a constitution was promulgated in compliance with article 13 of the act of the German confederacy. But the estates would not accept it, and, December 17, 1820, a new constitution was promulgated, providing for two chambers, which have this singularity in their constitution, that if a proposition made by the executive is adopted by one chamber and rejected by the other, the votes of both chambers can be counted together, and the majority of both decides. The chambers have the right to complain of officers, make proposals to government, and to grant taxes. Their sessions are triennial. The peasant is much oppressed by heavy taxes, and disturbances have several times arisen. The present grand duke, Louis II., succeeded his father, Louis I. (as landgrave, Louis X.), April 6, 1830, and was born December 26, 1777. The capital is Darmstadt.

HESSE-HOMBURG; landgraviate and member of the German confederacy, containing 164 square miles, with 21,564 inhabitants, mostly Lutherans. It consists of two parts, the lordship of Homburg, situated N. N. W. of Frankfort, and the lordship

* In 1830, the elector found himself constrained, by popular disturbances, soon after those in Brunswick, to make concessions, and to give the pledge of a constitution.

Meissenheim. The capital is Homburg, with 3490 inhabitants. Revenue, 180,000 guilders; debt, 450,000 guilders; contingent for the confederacy, 200 men. The present landgrave is Louis, lieutenant-general in the service of Prussia, born August 29, 1770.

HESSE-PHILIPPSTHAL; a collateral line of Hesse-Cassel. (q. v.)

HESSE-PHILIPPSTHAL-BARCHFELD; a collateral line of Hesse-Cassel. (q. v.)

HESSE ROTHENBURG; a collateral line of Hesse-Cassel. (q. v.) (Catholic.)

HESSIA. The Hessians, called, in the early history of Germany, *Catti*, lived in the present Hessia; part of them emigrated to the Netherlands, and were called *Batavi*. They are mentioned under Augustus. Germanicus, son of Drusus, conquered them, burnt their chief place, Mattium (Marburg), and led a daughter of a Cattian prince, together with a priest, in his triumph. At a later period, they belonged to the great empire of the Franks. Even before the time of Charlemagne, Christian churches were built at Hersfeld, Fritzlar, and Amoneburg. The German king Adolphus of Nassau made Hessia an imperial principality in 1292. According to the injudicious habit of those ages to divide countries among all the sons of a prince, and sometimes even the daughters, Hessia was often divided and reunited. In 1500, William II. was in possession of the whole of Hessia. He died in 1509, and left the landgraviate to his son Philip, then five years old. Many disturbances in Hessia, and in Germany in general, induced the emperor Maximilian to declare Philip of age in 1518, when only fourteen years old. In 1523, he put an end to the disturbances caused by Francis of Sickingen, defeated, in 1526, the peasants in the peasant war, and was at the same time a zealous promoter of the reformation. He founded the university of Marburg and four hospitals, from the property of suppressed convents. He was also the author of the celebrated conference between Luther and Zwinglius, at Marburg, in 1529, in the hope of uniting them; and, with the elector of Saxony, he accepted the direction of the Smalcaldic league. The battle of Muhlberg, in 1547, so unfortunate for the Protestants, obliged him to surrender, unconditionally, to Charles V., who kept him for five years near his person. He afterwards ruled his country in peace. His character was impetuous. By his will (1562) he divided Hessia among his four sons. But Philip died in 1585, and Louis in 1604, without heirs; from the others sprung the two existing lines of Hesse-Cassel and Hesse-Darmstadt. (q. v.)

HESYCHASTES (from the Greek ἡσυχάζειν, to be quiet;) the name of a party among the monks on mount Athos, noted, in the fourteenth century, for their fantastic notions. They regarded the navel as the seat of the soul, and consequently as the object of contemplation. After long perseverance in prayer, with their chin on their breast, and their eyes fixed on their navel, they believed they would finally have a sensible perception of the divine light, and might enjoy the bliss of beholding God. This light, in which the Godhead dwells, and which emanates from the Godhead, they pronounced uncreated, and yet distinct from the being of the Godhead. In a controversy concerning the nature of this light, in which they were opposed by the Calabrian monk Barlaam, under the protection of the Greek emperor Andronicus Palœologus the younger, the zeal of their defender Palama, archbishop of Thessalonica, gained them the superiority in a synod held at Constantinople in 1341. A change of government deprived the Hesychastes of their superiority, and the other contests of the church consigned this error to oblivion. The remembrance of it was recalled by the Quietism of the seventeenth century, and it may, perhaps, receive some physiological explanation from the Magnetism of the nineteenth.

HESYCHIUS, the author of a Greek glossary, which has probably come to us in an abridged form, and which he partly collected from former dictionaries, and partly enlarged by many new words and examples from Homer, the dramatic and lyric poets, the orators, physicians, and historians, was a native of Alexandria, and according to some lived about the end of the fourth, or, as others say, in the fifth or sixth century after Christ. Of the circumstances of his life, nothing is known. The best editions of his glossary are Alberti and Ruhnken's (Leyden, 1746—66, 2 vols., folio) and Schow's (Leipsic, 1792), as a supplement to the former.

HETÆRA (Greek ἑταίρα, a female friend); the name given by the Greeks to a concubine, a mistress, &c. Even Venus as worshipped in some places under the surname of *Hetæra*; and her priestesses were also called by this name. The notions of the ancients concerning domestic virtue, their passionate admiration for the beautiful and the real accomplishments of many of the *hetæræ*, occasioned their society to be sought by men of the highest eminence, even Plato and Socrates. No shame was attached to associating with them. Aspasia is the most renowned of these *hetæræ*. The names of Leontium, Theodata, &c., are also well known. They may be compared to Ninon de l'Enclos, Sophie Arnault, &c., in modern times. *Hetæræ*, less intellectually famous, were Cratina, Lais, whom Aristippus the philosopher loved, Phryne and others. They also became famous for their connexion with the works of art. Praxiteles made a marble and gold statue of the latter, and she was also the model for his Venuses. His son, Cephissodorus, acquired his fame, as several others did, by making statues of *hetæræ*. They were not generally natives of the places where they lived, and at Athens, where citizenship was a subject of great pride, foreign women in general were despised, by the Athenian women, and the term *foreign*, as applied to a female, had much the same signification as *hetæra*. See *Corinth*.

HETAIREIA, or HETÆRIA (*Greek*; brotherhood, or society of friends). In 1814, a society of the friends of the Greeks was formed in Vienna, by the co-operation of the count Capo d'Istrias and the archbishop Ignatius (who lived in retirement at Pisa), having for its object the diffusion of Christian instruction and true religion, both among the ignorant *papas* (the inferior clergy) and among the people, by schools and other means. The statutes of this association were printed in the modern Greek and the French languages. Princes, ministers, scholars of all nations, and the rich Greeks of the Fanar, joined it, and the association soon consisted of upwards of 80,000 members. The symbol of the society was a ring, with the image of the owl and of Chiron, who, as the educator of heroes, has a boy on his back. Its treasury was at Munich. Originally, the Hetæria had no political object; but by degrees the desire was awakened to co-operate actively in the emancipation of Greece from the Turkish yoke. This desire took the deepest hold of the educated part of the Grecian youth. Powerful allies were sought and found; considerable means were accumulated, that every thing might be in readiness. Odessa was the point of union of the Hetæria with Constantinople, where the society made preparations for a great struggle. As soon as Ypsilanti (See *Greece, Modern, Insurrection of*) called the Greeks to liberty at Jassy, in March, 1821, the youths of the Hetæria

hastened from Russia, Poland, Germany, France, Switzerland, and Italy. Of the Hellenic volunteers Ypsilanti formed the brave legion of Hetærists, in the black uniform of hussars, with a Walachian cap, having in front a death's head and thigh bones crossed, with a three-coloured cockade (black, white and red), and a white banner with a red cross, and the motto of the ancient Labarum, Εν τουτῳ νικας. The history of their unhappy conflict, and of the manner in which the flower of the Greek youth, the sacred legion of 400 or 500 Hetærists, having been betrayed in the battle of Dragashan (June 19, 1821,) by the Arnaouts and Pandoors, fell victims to their courage and patriotism, is given in the articles *Greece, Modern, and Ypsilanti.* Twenty only of these heroes, under captain Jordaki, together with some Albanese, escaped, covered with wounds. Another legion, under captain Anastasius, was stationed at Stinka on the Pruth, where they were attacked (June 25) by the pacha of Ibrail, and, after a valiant resistance, fled to the Russian territory by swimming across the Pruth. Jordaki and Pharnaki, with the remaining Hetærists and some Arnaouts, carried on a partisan war in the mountains and forests of Moldavia, defended themselves in monasteries, repelled an enemy four times stronger than themselves (for example, at the monastery of Slutino, July 25, and the following days), and were finally defeated at the monastery of Seck, Sept. 24, 1821, where the wounded Jordaki, to avoid falling into the hands of the Turks, set fire to the monastery, and perished in the conflagration. Thus ended the Hetæria. See *Nouv. Obs. sur la Valachie*, &c., *par un Témoin oculaire, F. G. L*, Paris, 1822.

HETERODOX (from the *Greek*); meaning *believing otherwise*, in contradistinction to *orthodox*. It is chiefly used to designate one who denies the dogmas of a particular church. The Catholics call a person who disbelieves all or certain dogmas of the church (sanctioned by councils and the decisions of popes) a *heretic;* the Protestants prefer the milder expression *heterodox*.

HETMAN, or ATAMAN; the title of the chief (general) of the Cossacks, said to be derived from the old German word *Het* (head). While the Cossacks were under Polish dominion, king Stephan Bathori set over them (in 1576), a commander-in-chief, under the title of *hetman*, and gave him, in token of his dignity, a banner or staff of command, and a seal. These marks of dignity are even now in use. The hetman is chosen by the Cossacks themselves, but the choice must be ratified by the emperor. When the Cossacks submitted to the Russians in 1654, they retained their form of government entire. But the famous hetman Maseppa having espoused the party of Charles XII., in 1768, with the intention of uniting again with the Poles, Peter I. imposed many restrictions on the Cossacks, and the place of hetman frequently remained long unoccupied. The count Rasumowsky, having been elected hetman in 1750, received, instead of the former domains and revenues, 50,000 rubles annual pay. Catharine the Great abolished altogether the dignity of hetman of the Ukraine, and established instead a government of eight members. The Cossacks of the Don have retained their hetman: his former great authority is, indeed, somewhat circumscribed, but he acquires more and more the character of a sovereign, instead of that of a mere general and governor. See *Cossacks*.

HEULANDITE; the name applied to a species of the zeolite family in mineralogy, by H. T. Brooke, in honour of M. Heuland of London. It had been confounded with stilbite, from which it differs essentially, however, in the form of its crystals, which are always some modification of the right oblique-angled prism. In hardness, it is between calcarious spar and fluor. Specific gravity, 2·200. It is white and transparent, passing into red, when it becomes nearly opaque. It consists of silex 59·14, alumine 17·92, lime 7·65, and water 15·40. It is chiefly found in the cavities of amygdaloidal rocks, and occurs in the Faroe isles, the Harts, and the trap of the Giant's Causeway and of Nova Scotia, at each of which places it is nearly colourless and transparent. It is found at Paisley, in Scotland, and in the Tyrol, of a colour approaching to scarlet, and almost opaque.

HEXACHORD (from the *Greek*); a chord in the ancient music, equivalent to that which the moderns call a *sixth*. Guido divided his scale by hexachords, of which it contained seven; three by B quadro, two by B natural, and two by B molle. It was on the account that he disposed his gamut in three columns. In these columns were placed the three kinds of hexachords according to their order. *Hexachord* is also the name for a lyre with six strings.

HEXAMETER (from the Greek ἑξαμετρος), a verse of six feet. The sixth foot is always a spondee (two long syllables), or a trochee (a long and a short). The five first may be all dactyles (two short syllables and one long), or all spondees, or a mixture of both. The scheme of this verse then is,

—⏑⏑ | —⏑⏑ | —⏑⏑ | —⏑⏑ | —⏑⏑ | —⏑

or, — — | — — | — — | — — | — — | — —

with all the varieties which the mingling of the two kinds of feet, as mentioned above, affords; as,

—⏑⏑ | —⏑⏑ | — — | — — | —⏑⏑ | —⏑

for instance,

Κλυθι μιν, Αργυροτοξ' ὁς Χρυσην αμφιβεβηκας,

or, — — | —⏑⏑ | —⏑⏑ | —⏑⏑ | —⏑⏑ | —⏑

as, Κιλλαν τε ζαθεην, Τενεδοιο τε ἱφι ανασσεις,

and so on. This immense variety of which the hexameter is susceptible, its great simplicity, its flowing harmony, and its numerous pauses, constitute the charm of this admirable verse, and adapt it to the most various subjects. The hexameter is so long as to require, at least, one cæsura, which is generally in the middle of the third foot, either immediately after the arsis (the first part of the foot), which is the more common, in which case the cæsura is called a *male* one; as,

Forte sub arguta | consederat ilice Daphnis;

or the cæsura is a syllable later, after the thesis (the latter part of the foot), in which case it is called *female*, as less nervous and powerful; as,

Huc ades, o Meliboe, | caper tibi salvus et hædi.

If there is no cæsura in the third foot, there must be one in the fourth, and then always at the arsis. It is considered a beauty if it be preceded by another cæsura in the second foot; as,

Qui Bavium | non odit, amet | tua carmina Mevi.

Every good hexameter has one of these three chief cæsuras, but others may also be used. And here we must mention the cæsura in the arsis of the first foot, if the verse begins with a monosyllable, which, in consequence of such cæsura, acquires a strong emphasis; as,

Urbs | antiqua fuit. Tyrii tenuere coloni.

A full stop at the chief cæsura, as in the verse just quoted, is considered a beauty. It is hardly necessary to mention, that a hexameter without a cæsura is extremely lame; as the following:

Nuper | quidam | doctus | cœpit | scribere | versus.

A monosyllable may be used at the end of a hexameter, if preceded by another monosyllable; but when it is the intention of a poet to produce a rough verse, or to express something ludicrous or unexpected, a monosyllable may stand at the end without observing the rule just mentioned; as,

Dat latus, insequitur cumulo præruptus aquæ mons.

It is erroneous to suppose that, in reading a hexa-

meter, the divisions of the feet should be distinctly marked in the pronunciation; for instance, the hexameter

Indignor, quandoque bonus dormitat Homerus,

in this way,

Indig-norquan-doquebo-nusdor-mitatHo-merus

The proper mode is to divide the verses according to their chief and secondary cæsuras; to discriminate accurately between the long and short syllables, and to dwell slightly, but perceptibly, on the arsis. As the hexameter was particularly used in the epic (q. v.), it received the name of *heroic verse*. If, as was mentioned above, the chief cæsura of the hexameter is in the fourth foot, it is called a *bucolic cæsura*, because it occurs most frequently in the bucolics. A spondee is rarely used in the fifth foot, and then, in Latin, the word with which the verse ends is generally composed of four syllables, and the fourth foot, at least, must be a dactyle; as,

Cara deûm soboles, magnum Jovis incrementum.

Why the last foot cannot be a dactyle, every one feels. The close would be incomplete; the mind would not be at rest.

The prevalence of the dactyle or spondee in the hexameter, depends much upon the genius of the language; thus the dactyle is more frequent in Greek than in Latin, and in German than in Greek. It is evident that the hexameter requires distinctly long and short syllables, and cannot, therefore, be formed in languages which have no distinct prosody, as Italian, French, Spanish, English, &c., more particularly in the latter, on account of its great number of monosyllables, very few of which a good ear would allow to be short. Annibal Caro, however, tried hexameters in Italian; Baif, in French; Stanyhurst, Sidney, and Southey, in English; but without success. Adlerbeth used Swedish hexameters in his translation of Virgil. Meermann has written Dutch, and recently, also, Baros and Debreuti, Hungarian hexameters. In no modern European language have hexameters become truly naturalised, except in German, to which this measure, skilfully used, seems nearly as well adapted as to the Greek. Fischart attempted the German hexameter in the sixteenth century. In the middle of the eighteenth century, it was used and recommended by Klopstock, Us, and Kleist, but was still in a very rude state. Goethe's hexameters are exceedingly rude, and very often as poor as their sense is beautiful. John Henry Voss improved the German hexameter by the excellent translation of Homer, and his valuable *Zeitmessung der Deutschen Sprache* (Konigsberg, 1802). But the German hexameter is most indebted to Schlegel, who has made some of the best observations within our knowledge on it, in the Indian Library, in treating of the Descent of the Ganges, of which he has given a translation in hexameters from the Sanscrit. Grecian tradition attributed the origin of the hexameter to the Delphic oracle; hence it was called also the *theological* and *Pythian metre*.

HEXAPLA; a collection of the Holy Scriptures, in six languages, used, particularly, for the one published by the Greek bishop Origen, containing the text in Hebrew and Greek letters, the Septuagint, and three other translations.

HEYNE, Christian Gottlob, a distinguished scholar, was born September 25, 1729, at Chemnits, in Saxony, whither his father, a poor linen weaver, had fled from Gravenschutz, in Silesia, on account of religious persecution. The difficulties which pursued him till manhood, could not repress his fine powers, or destroy his natural sensibility; but, on the contrary, threw him back on himself, and taught him to confide in himself. He could hardly obtain the slight assistance which was necessary to gratify his early wish of being instructed in the Latin language. From 1741 to 1748, he attended the lyceum at Chemnitz, where the instructors acknowledged his uncommon talent, and the untiring industry with which, deprived of almost all literary resources, he had acquired a remarkable acquaintance with the ancient languages. In the most destitute condition, he proceeded to the university of Leipsic, in 1748. There he was principally attracted by Ernesti's lectures, which made him acquainted with the principles of interpretation, while the archæological and antiquarian prelections of professor Christ enlarged his knowledge of classic antiquity, and his knowledge of literature was speedily extended by industrious reading and almost excessive nocturnal labour. Besides these studies, he pursued another as a means of subsistence (the law), and listened with great benefit to the history of the Roman law, with reference to ancient literature and history, as delivered by the celebrated Bach, by which means he was afterwards enabled to deliver lectures on Roman antiquities, for jurists in particular. He also wrote, in 1752, a legal disputation, for his degree of master. A Latin elegy, composed by Heyne, at the request of the reformed congregation of Leipsic, on the death of their pastor, made him known to the minister of state, count Von Bruhl, in whose library he was appointed copyist, with a salary equal to about seventy-five dollars. The only benefit that he derived from this appointment, was an enlarged acquaintance with the works of ancient literature, for which his inclination became every day more settled. Necessity at first compelled him to undertake several translations. The first classic of which he undertook an edition through inclination, was Tibullus, which he published for the first time in 1755. The moral tone of his own mind also led him to the writings of the stoic Epictetus, of which he published an edition in 1756. These two works made him known abroad. The breaking out of the seven years' war deprived Heyne not only of his salary, but also of his other means of subsistence. By Rabener's recommendation, he at last found support in the house of a lady named Von Schonberg, whose brother he accompanied as governor to Wittenberg, in 1759, where he was introduced by Ritter to a more thorough acquaintance with history. The war again dragged him from his studies, and placed him in a difficult situation, which, however, developed in him a talent for business. At this time, he prepared the Latin text for the third thousand of the *Lippert Dactyliotheca*, which made him more intimate with this department of archæology. At Ruhnken's recommendation, he received, in 1763, an invitation to succeed Gessner as professor of eloquence at Gottingen. He was soon after appointed first librarian and counsellor. To discharge the functions of these posts, required the most multiplied labours. He says of himself, with great candour, that, "till he was professor, he never learned the art it was his duty to teach." But he soon made himself at home in his new duties. His numerous and really classical programs, embracing the most attractive subjects of antiquity, and giving us cause to admire the extent of his knowledge (*Opusc. Acad.*, six parts), evince that he thought and composed in Latin, and that he could express himself not only with purity, but also with ease and taste. His lectures, which he read with the greatest punctuality, constituted by degrees a circle of the most attractive and instructive subjects that the study of the ancients presented, and were closely connected with his activity as an author. By these prelections, as well as by his five years' connexion with the Royal Society, founded at Gottingen, by Haller, of which he was a most industrious member;

by his indefatigable participation in the Gottingen Literary Gazette (*Gottinger Gelehrte Anzeigen*), which, especially under his management, from 1770, had the merit of acquainting Germany with the most important and rare works of the English and French; finally, and above all, by the direction of the philological seminary of Gottingen, which, under his guidance, was a nursery of genuine philology, and has given to the institutions of instruction of Germany, a vast number of good teachers;—by all this, together with his editions and commentaries on classic authors, Heyne has deserved the reputation of being one of the most distinguished teachers and scholars of Germany; nay, we may even say, of the literary world. But the centre of his activity was the poetic department of classical literature, which he espoused for itself alone, and from love of poetry, free from the narrow views which had been and were then prevalent among philologists. His particular merit consists in having raised the knowledge of antiquity and classical literature from the dust of the schools, and introduced it into the circle of the polished world. He esteemed the study of the languages, of grammar and metre, as the foundation of the further study of classic literature, but by no means as themselves the ultimate object. This is shown by his editions of the poets, which gained him the most extensive reputation, of Tibullus, and especially of Virgil. For the most difficult, also, of the ancient poets, and the one who had the fewest commentators, for Pindar, he has done much to make him intelligible, and first brought him into the course of instruction. But his principal work, which employed him for eighteen years, was his great though unfortunately unfinished edition of Homer. Proceeding from the poets, he entered the territory of mythology, on which he shed much light, by his edition of Apollodorus, &c. Archæology gained equally by his antiquarian essays. Connected with these archæological and antiquarian investigations, were his historical labours, viz., the treatment of Greek and Roman antiquities, and his extensive knowledge of the internal history, constitutions, and legislation of the states of antiquity, which he knew how to apply happily to the events of his own time. Even as a man of business and the world, Heyne was worthy of respect; on which account he was intrusted, from all quarters, with honourable employments, and his advice was not unfrequently asked by the curators of the university. He brought the library of Gottingen to its present state of excellence, so that it is regarded, by competent judges of the subject, as the first in Europe, because all the departments are methodically filled. In the same flourishing condition did he leave the other institutions which were intrusted to his supervision. Not merely the fame of his great learning, but the weight of his character, and the propriety and delicacy of his conduct, procured him the acquaintance of the most accomplished and eminent men of his time. George Forster, Huber and Heeren became his sons-in-law. The centre of his activity always was the university, which he loved with filial fidelity and disinterested affection. In dangerous times, the influence which he had acquired, and his approved uprightness and wisdom, were of great service to that literary institution. By his efforts, the university and city of Gottingen were spared the necessity of affording quarters to the soldiery, while the French had possession of Hanover, from 1804 to 1805. At this time, his occupations were much multiplied, and he was himself appointed a member of the committee of the estates. When the kingdom of Westphalia was erected, he was no less active, and had, moreover, the pleasure of seeing his efforts successful and his services acknowledged. After giving a final revision to his works, an attack of apoplexy terminated his well-spent life, July 14, 1812, in the eighty-third year of his age. See Heeren's *Life of Heyne*, Gottingen, 1813.

HIACOOMES, the first Indian in New England who was converted to Christianity, lived upon the island of Martha's Vineyard, when a few English families first settled there, in 1642. He was instructed in the truths of Christianity by the reverend Thomas Mayhew, and, in 1645, began his apostolic labours among his red brethren. In August, 1730, an Indian church was established on Martha's Vineyard, and Hiacoomes and Jackanash, another Indian, were regularly constituted its pastor and teacher. Hiacoomes survived his colleague, and lived to the advanced age of nearly eighty. His death occurred about the year 1690. He performed all his ministerial duties with the greatest propriety and regularity; was slow of speech, of great gravity of manner, and led a blameless life.

HIATUS (*Latin;* opening) usually signifies a break; in prosody, for example, if one word ends with a vowel, and the next word begins with a vowel, an opening of the lips similar to that in yawning, is produced in pronouncing them. Nature herself appears to have taught men to avoid the hiatus, since there is, perhaps, no language, in which euphonic letters are not found, the sole use of which is to prevent the hiatus. (See *Euphony.*) In Greek, this hiatus was avoided by the addition of the so-called *movable* ν, or, in some cases, of a σ or a ς to the first word, or by an elision of its final vowel. The doctrine of the *digamma* (q. v.), in the criticism of the text of Homer, is founded on the observation, that, with the exception of a certain number of words beginning with a vowel, which have a hiatus often before them, the hiatus becomes very rare in Homer, and, in most cases, has some particular justification. These words are also rarely preceded by an apostrophe, and preceding long vowels and diphthongs, are seldom shortened before them. These facts are explained by the assumption of the existence of the *digamma*. A chasm in MSS., occasioned by a part of a manuscript being lost, or by erasures, is often denoted in copies by the phrase *hiatus valde deflendus*, i. e., an unfortunate chasm.

HIBERNIA; the ancient name of Ireland, so called first by Julius Cæsar. Pomponius Mela calls it *Juverna;* Ptolemy, *Juvernia;* others, *Ouernia, Iernia, Iris.* Aristotle mentions this island by the name of *Ierna*, and, at the same time, speaks of *Albion.* In the *Argonautica*, which go under the name of Orpheus, the island of *Iernis* is mentioned. The inhabitants of Britain told Cæsar, that Hibernia lay west of their island, and was only half as large. Ptolemy, who received more correct accounts from merchants who had been there, makes but few mistakes in his account of its size, form, and situation; and by means of their information, he was enabled to form a chart of Hibernia, and to give tolerably accurate accounts of its coasts, rivers, promontories and inhabitants. Agricola made preparations for conquering the country, but his design was not executed. Hibernia, therefore, was never reduced to subjection by the Romans. See *Britain*, and *Ireland.*

HIBRIDA, HYBRIDA, or IBRIDA (Latin; from the Greek ὑβρις, a mongrel), meaning *of double race*, for instance, if the father was a Roman and the mother a foreign woman, or the former a freedman and the latter a slave. *Hibrida* corresponds to the modern *mulatto.* If the parents had not received the *jus connubii* from the senate, the *hibridæ* were little better than slaves. Hence *vox hibrida*, a compound of two different languages, as *monoculus, orchideæ.*

HICKORY. This term is applied in America to several species of walnut, which, however, form a

natural section, or perhaps genus (*carya*), differing from the true walnuts, especially in the smooth exterior of the nuts. All the species of *carya* are exclusively confined to North America, and compose one of the characteristic features in the vegetation of that continent. See *Walnut*.

HIDALGO; a Spanish nobleman of the lower class. (See *Grandees*.) To the lower nobility pertain the *caballeros*, *escuderos* and *hidalgos* (from *hido*, son, and *algo*, something). There are *hidalgos de naturaleza*, of noble birth, and *hidalgos de privilegio*, that is, those on whom the king has conferred nobility in reward of distinguished services, and those who purchase nobility. The latter possess all the rights and privileges of the other nobles, but are not so highly respected. With the exception of some old houses and knights of orders, the *hidalgos* differed little from the commoners. The Portuguese *fidalgo* has the same signification. The Genealogical, Historical, and Statistical Almanac for 1830 (Wiemar) gives 484,131 *hidalgos* in Spain.

HIDALGO, Miguel; a Mexican priest, who, in conjunction with Allende, commenced the war of independence in New Spain, in 1809. Hidalgo was, at that time, curate of Dolores, and possessed great influence over the Indians and Creoles. After raising the standard of independence, he was joined by a large body of men and the garrison of the city of Guanaxuato and of some other towns in the same province. Thence he marched to Valladolid; and, continuing to meet with success, he threw off his clerical robes, and assumed the uniform and rank of *generalissimo*, Oct. 24, 1809. Continuing his march, he approached Mexico, the capital, which was then poorly defended; but when circumstances favoured the attack, he drew off his troops, and began to march back towards Guanaxuato. At length the viceroy, Venegas, collected a sufficient body of troops to become the assailant in his turn. Hidalgo was met and defeated by the Spaniards under Calleja, at Aculeo, and here the patriots received their first check. Other engagements followed, between various chiefs of the two parties. Hidalgo sustained another total defeat near Guadalaxara, Jan. 17, 1811, and was compelled to retire to Zacatecas with his scattered and disheartened forces. Thence he retreated to San Luis Potosi, with the intention of withdrawing into the Texas, in order to reorganise his army. He was finally overtaken at Acatita de Baján, having been betrayed by Bustamente, one of his officers, and was made prisoner with all his staff. He was removed to Chihuahua, where, after the form of a trial, he was shot, June 20, 1811, having been previously deprived of his priest's orders previous to his execution. Poinsett's *Mexico*.

HIEN; a Chinese syllable, which, when added to geographical names, means a city of the third rank.

HIERARCHY (from ἱερὸς, sacred, and ἀρχὴ, a government); a sacred government, sometimes used to denote the internal government of the church, sometimes the dominion of the church over the state. In the former case, the hierarchy arose with the establishment of the Christian church as an independent society. Although elders, called *presbyters*, stood at the head of the smallest congregations of Christians, their constitution was democratic, each of the members having a part in all the concerns of the association, and voting in the election of elders, on the exclusion of sinners from the communion of the church, or the reception of the repentant into its bosom. The government of the congregations was gradually transferred into the hands of their officers, as was natural when the congregations had become societies of great extent. In the second century, the bishops acquired a superiority over the elders, and became the supreme officers of the congregations, although the presbyters, and, in many cases, all the members of the churches, retained some share in the government. The bishops in the capitals of the provinces, who were called *metropolitans*, soon acquired a superiority over the provincial bishops, and exercised a supervision over them. They were themselves subject to the bishops of the principal cities of the Roman empire, Constantinople, Antioch, Alexandria, and Jerusalem, who received the title of *patriarchs;* and thus a complete aristocratic constitution was formed, which continued in the Greek church, while, in the Latin, the aristocracy was transformed into a monarchy. The Roman bishop acquired the primacy over the others, and, the opinion having become prevalent that the apostle Peter had founded the Roman church, and that its bishop was his successor, the Roman bishop, moreover, having received, about the close of the eighth century, from the generosity of Pepin the Short, a considerable region in Italy for a permanent, though originally not an independent possession, his authority constantly increased, and he gradually became the monarchical head of Western Christendom.

The word *hierarchy* is frequently used in the second sense, viz., of the relations of the church to the state, in which the church is not only independent of the state, but even claims a superiority, and demands the subjection of the political interests to its own. In the first centuries, the church had no connexion with the state. It did not seek to acquire influence over the state, and the state sometimes persecuted the Christian religion. After the church was amalgamated with the state, in the time of Constantine the Great, it obtained protection, but was dependent on the temporal rulers, who asserted the right to convoke the general councils, and to nominate the metropolitan bishops, and even frequently interfered in the internal affairs of the church and its dogmatic discussions. It was the same in the Gothic, Lombard, and Frankish states, which were erected on the ruins of the Roman empire. The German emperors, and especially Charlemagne, also exercised over the church the rights of sovereignty, which the Roman emperors had possessed; and, after the feudal system had arisen in the German empire, the bishops held the church lands as fiefs received from the temporal princes; and even the Roman bishop, in his temporal character, stood in a feudal relation to the Frankish princes. But the germ of the hierarchical system already existed at this period, in the idea of the church as a society always enlightened by the Divine Spirit; in the idea, borrowed from Judaism, of a priesthood instituted by God himself, by which the clergy acquired dignity surpassing all temporal grandeur, and an authority emanating not from the state, but from God himself; and, finally, in the superiority of the clergy over the laity, resulting from the circumstance that they were the only depositaries of knowledge. But the hierarchical system could not be completely developed from these germs, till the Roman bishop became the undisputed head of Western Christendom, by which unity and strength were infused into the exertions of the spiritual power. For several centuries, the importance of the Roman bishop continued to increase: his power was especially augmented in the ninth century, by the Pseudo-Isidorian collection of canons, some forged, some interpolated, the object of which was to exalt the ecclesiastical authority above the secular. (See *Papacy*.) Gregory VII. exerted the most undaunted courage and liveliest zeal in the eleventh century, to enforce the claims of the hierarchy; and the principal means which he adopted for attaining this object were, to deprive the princes of the right of investiture (see *Investiture*), and to introduce celibacy among the clergy. (See

Celibacy.) Gregory did not wholly accomplish his object; but his successors pursued his plan with perseverance and success, and their efforts were favoured by the crusades, which were undertaken at the close of the eleventh century, and prosecuted for two centuries. These wars promoted a tone of public sentiment favourable to the claims of the church, and, as they were deemed of a religious character, they afforded the popes numerous opportunities to take part in the general affairs of the European nations, and to direct the undertakings of the princes. Amid these wars was developed the idea of the unity of the Christian church, with the vicar of Christ at its head.

Thus, from the end of the eleventh to the middle of the thirteenth century, the idea of a hierarchy was accomplished. The church became an institution elevated above the state, and its head, endowed with a supernatural fulness of grace, stood, in public opinion, above all secular princes. The highest dignities of Europe were the papal and imperial, but the papal tiara was the sun, the imperial crown, the moon. At this time, the popes were generally victorious in the disputes with the princes. Urban II., Paschal II., and Innocent III. and IV., in particular, knew how to maintain their superiority over the princes, and to exercise a powerful influence on the affairs of the European nations. The popes, however, were no more ambitious than the princes, and only acted in conformity with their character and relations, when they attempted to render the church independent of the political power, and to elevate it above the state. Since the hierarchy rested on public opinion, it was necessary for it to preserve this public opinion by every means, and to suppress whatever threatened to change it. It has, therefore, exerted a pernicious influence by establishing inquisitions, and restricting the freedom of the mind. But, on the other hand, it was, in early times productive of much good, by serving as a point of union to the European nations; by constituting a balance to the military political power; by frequently composing the differences of the princes, checking the eruption of wars, and giving religion an influence over the barbarous nations of the middle ages.

From the fourteenth century, the papacy, and with it the hierarchy, began gradually to decline. This is manifested by the disputes of the popes with Philip the Fair and Louis the Bavarian, which did not terminate to their advantage, as had been the case before. To this must be added the removal of the popes to Avignon, and the great schism which resulted in the councils of Pisa (1409), Constance (1414), and Basle (1431), where the popes appeared as parties before a higher tribunal, and it was proclaimed that the councils are superior to the popes. But what was of yet greater importance, public opinion gradually began to alter; and, in many places, the doubts started by Wickliffe and Huss found adherents. Meanwhile, the popedom and the hierarchical system stood uninjured in its outward forms till the beginning of the sixteenth century. But, at this time, the edifice, already tottering, was vehemently agitated by the reformation. In that portion of Western Christendom which separated from Rome, the hierarchy altogether ceased. The Catholic church continued, indeed, even after the reformation, to assert its hierarchical pretensions, but it was obliged to renounce one privilege after another: the papal power declined, and, in practice, became more and more dependent on the civil authorities.

Hierarchy is also used to denote a division of the angels, prevalent in the middle ages. This seems to have originated with Dionysius the Areopagite (*Coelest. Hierarch.* vii.). The number of hierarchies was three, each subdivided into three orders: hence Tasso (Jerusalem Del. xviii. 96) marshals his angels in three squadrons, and each squadron in three orders, and Spenser repeatedly mentions the "trinal triplicities." The first hierarchy consisted of cherubim, seraphim, and thrones; the second, of dominions, virtues, and powers; and the third, of principalities, angels, and archangels. Milton, to whose machinery, in his divine poem, many of the popular opinions on the subject may be traced, often alludes to this classification; as for instance,

> Thrones, dominations, princedoms, virtues, powers,
> Hear my decree.

HIERES, also HYERES, ISLANDS OF; in the Mediterranean, on the southern coast of France, in the department of the Var; lat. 43° N. They are four in number—Porteros, in the centre of the group, the island of Levant or Titan, of Porquerolles, and of Bagneaux. Around them lie some islets and rocks. Porquerolles and the island of Levant are the most important of the group. They are generally sterile and little cultivated. The Romans called them the *golden islands*, on account, it is said, of their producing fine fruits, particularly oranges. They contain about 1000 inhabitants. All the islands are defended by forts and batteries.

HIERES; a town of France, department of the Var; 3½ leagues from Toulon, 1½ from the Mediterranean; situated in a delicious country, where an almost constant spring prevails. The air is not healthy during summer, on account of the neighbouring marshes. Lat. 43° 7′ 2″ N.; lon. 6° 8′ 3″ E. Hières has 7844 inhabitants, and carries on considerable commerce in olives, wine, oranges, pomegranates, lemons. There are also salt-works in the vicinity. The beauty of the place attracts many strangers. The Romans called the place *Aria*; in the middle ages it was called *Ahires*. In the thirteenth century, many crusaders sailed from the port of Hières.

HIERO I.; brother and successor of Gelon. On his accession to the throne of Syracuse, Gelon conferred on Hiero the government of Gela, his native place, and, on his death, left him (B. C. 478) a sceptre, which he had (so to speak) rendered legitimate by his virtues. Hiero's reign, though less glorious than the preceding, was marked by a peculiar splendour on account of his generous encouragement of learning. But the recollection of his predecessor, whose memory was highly revered, exposed the faults of Hiero in a strong light, in the beginning of his reign, when he conducted, according to some historians, in a tyrannical manner. Veneration for the memory of his brother alone repressed the discontents of his subjects. Dazzled by greatness, corrupted by flattery, and suspicious in the extreme, Hiero at first surrounded himself with foreigners and mercenaries, fearing a rival in every one more virtuous and able than himself. His brother Polyzelus was particularly an object of his jealousy. He was a prince beloved by the people who were accustomed to compare him with Gelon. Hiero, therefore, wished to get rid of him, and gave him the command of the troops sent to aid Sybaris against Crotona. But Polyzelus, penetrating his intentions, fled to the court of his father-in-law, Theron, king of Agrigentum. The protection that he enjoyed here, was the cause of a war, which Hiero terminated by doing a service to his enemy. The inhabitants of Himera had been governed tyrannically by Thrasydeus, son of Theron. Wearied with oppression, they proposed to Hiero to deliver him their city. The king of Syracuse informed Theron of it, who, in consequence, made a proposal to terminate the differences subsisting between them by a permanent peace. Hiero received the sister of the

king of Agrigentum in marriage, and Polyzelus was restored to his brother's favour. Without manifesting military talents, Hiero ended with success all the wars which he was obliged to undertake. He expelled the inhabitants of Naxos and Catana, peopled both cities with a new colony, gave the latter a new name, *Ætna*; and, as its founder, took the surname *Ætnæus*, laying claim to the heroic honours which were accorded to those who had founded a city whose population amounted to 10,000 inhabitants. Soon after Hiero's death, the Catanians made themselves masters of their former country, and expelled the new settlers, who built, at a short distance from Catana, another city called *Ætna*, and Catana resumed its primitive name. Though some blemishes tarnish the first years of Hiero's reign, this must be ascribed to the painful uncertainty inseparable from the station he occupied; but he compensated for his first faults by the noble actions which signalised the remainder of his life. He readily assisted his allies in their wars, and protected the weaker, promoted the sciences, and afforded encouragement to scholars of all kinds. A long sickness which befell him, was the main cause of this alteration. Since he could no longer occupy himself with the cares of royalty, and it was necessary for him to seek recreation, he collected around him a society of learned men, in whose conversation he took an interest. He thus became acquainted with the pleasures of learning, and, after his recovery, never ceased to value it. His court became the rendezvous of the most distinguished men of his time. To their intercourse he was indebted for the improvement of his character and conduct. The names of Simonides and Pindar appear among those of his most constant companions, and show his judgment in the selection of friends. When Æschylus, jealous of the first success of Sophocles, left Greece, he betook himself to Hiero, to close his days in his kingdom. Bacchylides and Epicharmus were his intimate companions. The poet Simonides always possessed a great influence over the mind of this prince, and constantly employed it to inspire him with sentiments worthy of a sovereign. Xenophon would not, in his dialogue on the qualities of kings, have placed words in the mouths of Hiero and Simonides in contradiction with their actions; and the title *Hiero*, which he gives to his book, contains the finest eulogium of this monarch. According to Ælian and Pindar, few princes were to be compared with him. Always ready to give before he was asked, he placed no bounds to his generosity. He was several times victor in the Grecian games. Pindar has celebrated his victories: several odes of this poet are filled with his praises. Hiero died at Catana, 467 B. C., and left the crown, which he had worn eleven years, to his brother Thrasybulus, who lost it, however, one year after.

HIERO II., king of Syracuse, reigned about 200 years after the former. His father, Hierocles, claimed a descent from the family of Gelon. As Hiero was his son by a woman who was not of a free class, the boy was exposed, soon after his birth, for fear that the nobility of his father might be sullied. But, according to Justin, bees took charge of him, and nourished him several days. The augurs, being questioned for advice on the subject, answered that this was the token of future greatness. Hierocles therefore took him home, provided for his education, and afterwards treated him as his son. Hiero made a good use of the attention expended on him, and applied himself, with spirit and success, to military exercises. He was, on that account, distinguished by Pyrrhus, king of Epirus, who was then master of Sicily, and who, by leaving the island to itself, gave rise to confusion and anarchy. The Syracusans, acquainted with the qualities of Hiero, conferred on him the supreme command; and it was not difficult for him subsequently to arrive at the royal dignity. To procure partisans, he had connected himself with one of the most influential families of Syracuse, by marrying the daughter of Leptines. During Hiero's reign began the first Punic war, in which he was, at first, an ally of the Carthaginians, and was defeated by the consul Appius Claudius, who had come to the aid of the Mamertines. He then saw that the best course for him was to espouse the cause of the Romans, since the victories of the Carthaginians in Sicily could be of no benefit to him, but, on the contrary, would be likely to render them dangerous neighbours. In order to avert the war from his states, he sent ambassadors to the consuls Otacilius and Valerius, to offer a treaty of peace and alliance. From this time, he was only an instrument in the disputes of the two nations. Though he showed himself more favourable to the Romans, by providing them, during the first Punic war, with necessaries of all kinds, he did not refuse the Carthaginians the aid they asked in the servile war, and was able, by his adroitness, to preserve the friendship of both. In the period which intervened between the first Punic war and the second, he turned his attention to the government. He enacted wise laws, and was wholly devoted to the happiness of his subjects. The encouragement which he extended to agriculture enriched him and doubled the revenues of the state. He kept his word pledged to his allies, and when the Romans underwent a total defeat from Hannibal, at Thrasymene, Hiero proffered them provisions, men, and arms, and sent them a golden *victoria*, 320 pounds in weight, which they accepted as a happy augury. This kind attention consolidated the league between Rome and Syracuse; and even the loss of the battle of Cannæ, which was followed by the defection of all the other allies of Rome, did not shake his fidelity. Hiero was not merely employed in the erection of temples and palaces, but also in the construction of military machines of all kinds, under the direction of the great Archimedes. With the intention of surpassing the magnificence of all other kings, he built a ship, which had never been equalled for magnitude and splendour, and, from the description of which, preserved in Athenæus, it must have resembled a floating city. But it being discovered that Sicily had no harbour adequate to the reception of this immense structure, Hiero resolved to make a present of it to king Ptolemy; and, as Egypt was at that time in want of corn, took this opportunity to send a great supply of grain to Alexandria. Hiero died B. C. 214. As his son Gelon died before him, he left the crown, after wearing it fifty-four years, to his grandson Hieronymus.

HIERODULOI (*holy ministers*). In the temples of the Greeks there was a class of youths and maidens, who were employed in adorning the temple, decorating the altars with wreaths, and embroidering and cleaning the veils and garments of the statues. These maidens were called *plyntridæ* and *ergastinæ*, and the youths and older male ministers were called *neocori*, *pastophori*, *hierophantæ*, and *daduchoi*. But the *hieroduloi*, properly so called, are of a different nature. They had their origin in the Asiatic worship of nature. The primitive Asiatics worshipped the sun and moon. The goddess of nature, typified by the latter, was called *Venus Urania*, not in the sense of the Greeks, who understood by the term supernatural, heavenly beauty: the Asiatic Urania referred solely to the moon sailing in ether; and the worship of this goddess of the moon, is similar to that of the Assyrian, Phœnician, Persian, Cappadocian, Anaitis,

Semiramis, Atarogatis, Tauropolus, and to that of Cybele. In the rudest times of antiquity, young girls were sacrificed as victims in the worship of this goddess, who required the most beautiful first-lings. Afterwards, female slaves were substituted, who were either presented to the great goddess of heaven and nature, for her temple halls and pleasure groves, or were purchased by her ministers. These were obliged, in her honour, to surrender themselves, on the annual festivals, to the desires of the pilgrims and worshippers of the goddess. The male *hieroduloi* were youths who lacerated themselves with juggling fanaticism, and, in a fury, whirled round in circles, like the Turkish and Indian fakirs. Strabo speaks of 6000 *hieroduloi*, male and female, in the sacred environs of the temple of the Comanian goddess of nature, in Cappadocia. In every temple of the Phœnician-Carthaginian Urania, even in the temples of the Ephesian and Phrygian Diana, there were female slaves, who were called, in the Phœnician language, *benoth* (i. e., young maidens), whence the name *Venus* is said to have been derived. The worship of that goddess was imported from Asia into Greece, and here, as well as in the famous temple of Venus, on mount Eryx in Sicily, we find troops of *hieroduloi* who were courtesans, and had to add all that they acquired by their mercenary charms to the treasury of the temple. More than one temple of Venus (among others, that in Samos) was built by funds thus acquired. We still possess, on the fragments of the friese of a temple, and on two triangular candelabra vases, representations of these servants of Venus, which were formerly considered Spartan dancers, but in which the acuteness of Zoega detected the true *hieroduloi*. They are represented in a graceful attitude, standing on their toes, in a dancing position, both arms gracefully raised, and turning their slender bodies to the seducing movements of their sacred dance. Their dress consists only of a short garment gathered with a girdle, and is composed of the most delicate and transparent byssus, hardly reaching the knee. The arms and legs are entirely naked; on their feet they have sandals lightly laced; and, on their hair, bound together in a simple knot, they have a wreath, curiously woven of long, straight, radiating leaves or stalks, which, differing altogether from the head attire of the Grecian women, seems to indicate a foreign, Asiatic origin. Though the term *hieroduloi* was, perhaps, still unprofaned in the earliest times of Greece, when Locrian maidens were sent to Ilium as a tribute for the worship of Pallas, it subsequently denoted those well known servants of Venus, with whom Ionia and Cyprus supplied Greece Proper.

HIEROGLYPHICS (from the Greek *ιερα γλυφη*, sacred engraving) was applied by ancient writers exclusively to the sculpture and inscriptions on public monuments in Egypt, because it was thought that they were intelligible only to the priests, and those who were initiated in their mysteries; but, in modern times, the word has been used for any *picture-writing;* any mode of expressing a series of ideas by the representations of visible objects. Thus we speak of Mexican hieroglyphics, waving the idea of sacred, which the name implies according to its etymology. In this article, however, we shall treat only of Egyptian hieroglyphics, intending to return to the general subject in the article *Writing*. We shall also there speak of the interesting Mexican hieroglyphic, the original of which is in the Escurial, and a Spanish version of which was translated into English by Purchas (History of the Empire of Mexico, with Notes and Explanations, in part iii. of Purchas's Pilgrimages); yet it will be necessary to mention cursorily some of the principal stages in the development of that most admirable art, writing, in order to understand to which of them the Egyptian art of writing (hieroglyphics) belongs.

Man loves the past. Whether prosperous or adverse events have marked the course of his life, he wishes to remember them, and wishes them to be remembered by his children. This feeling is one of those innate desires which Providence implanted deep in the human mind, which elevates man above the brutes, and which is intimately connected with the consciousness that he does not stand alone, but belongs to a human society, and not only to the present, but also to the past and the future. Who is so stupid as not to desire to know what his parents did, and to inform his children of what he has done? What was, then, the expedient which at first offered itself to man to enable him to commemorate events, to fix, as it were, the evanescent act? We answer, the picture, the physical representation of the event. What can be more natural, for instance, than a rude delineation of water, and persons drowning, if men wish to record a great inundation? This mode of writing, mixed with very few symbolical or conventional signs, is, to the present day, in use among the Indians of North America. Witness their descriptions of battles on buffalo skins, or the directions which one hunting party gives to others, or their inscriptions upon graves, explaining why and when certain persons were slain. Picture-writing—we mean here actual pictures, executed, however, for the purpose of commemorating an event, and not as works of art—exists among all but the most savage tribes, as ancient and modern writers amply prove. But it is plain, that, if certain events occur often, a certain sign, simpler than a complete pictorial representation of the event, will be adopted; for instance, to designate a battle, only a few dead bodies, and, in course of time, perhaps, only two arrows will be drawn; or, to indicate a victory, the head of the conquered general will be represented at the feet of the conqueror, with a plant peculiar to the conquered country (as is the case in the Mexican hieroglyphics above-mentioned). Thus men would soon arrive at symbolical and conventional hieroglyphics, as a matter of convenience, if for no other reason; but, as their ideas enlarge, they become desirous to represent invisible things, ideas; for instance, in order to reckon time, the natural month would probably be designated by a moon (in many languages the words *month* and *moon* are related), and the number of them by points. But man goes farther; he wishes to express abstract ideas, such as *power;* and what is more natural than that he should designate this idea by some familiar object, which most strongly suggests the notion of strength or power, as, for instance, the picture of a lion? Thus he arrives at the symbolical hieroglyphics.

The art of writing takes the same course which we suppose language to have previously taken; that is, it begins with concrete objects, and goes on to abstractions—a course which can be traced, in many instances, in all original languages. Language is first concrete, then symbolical, then abstract. All nations at a certain stage of their existence speak symbolically; and the language of poetry, in all ages, is symbolical. How many instances do we not find in the language of the Old Testament? And if Pythagoras, when he says, "During the storm, go and worship the echo," means *Retire to solitude during civil contention*, the whole phrase is symbolical. This circumstance, which springs, at the same time, from disposition and necessity (because the human mind cannot elevate itself immediately to abstraction, but can reach it only by gradual generalisation), is of great assistance to man when his efforts to express

imself by visible signs have reached the stage above-ientioned. An eye with a sceptre, beneath, would not e understood so easily to signify a *king* at present, s it was by the Egyptians. Symbolical hieroglyphics must immediately produce conventional: they re, indeed, conventional themselves, as the symbol hosen is not the only one by which the same idea ight have been expressed; and, besides, a sign hich is symbolical for one generation, may be mere-conventional for the next. Besides, the more en have to write, the less time can they bestow on eir writing, and in the same proportion as the sym-ol gradually expresses more and more the general lea, the sign itself becomes less and less similar to e original symbol, until at last it is no longer to be cognised as the picture of an object, but takes the aracter of a mere conventional sign. This is the se with most of the signs of the Chinese writing, hich no one could recognise as pictures of the ob-cts for which they were originally intended.

We have thus traced writing to the stage in which gns representing the object itself, symbols designat-g the object by association of ideas, and conven-nal or arbitrary characters, are used together. Of is manner of writing we still find instances among e most civilised nations. The Germans use a †, works where the saving of space is important, for e word *died*. This is an instance of symbolical eroglyphics, the cross indicating *death*, either cause it was generally planted upon graves, or cause it called to mind the death of Him, whose ath is most important. In the same way, they ite □ *m.*, for *square miles*. This is a figurative roglyphic. The Atlas of Las Cases (Le Sage) is l of symbolical, figurative, and conventional, or, as y should rather be called, *arbitrary hieroglyphics*. what way the human mind made the next great p of designating the grammatical forms, for in-nce, by adding to a hieroglyphic the feminine or ral sign (or, as we should call it the *termination*), shall treat of more fully in the article *Writ-g*.

After the human mind has reached the point ove-mentioned in the formation of signs, it has o ways of farther progress. It may either gene-ise the sign, or generalise the thing signified by sign. The first mode was adopted by the Egyp-ns. Thus the sign of an eagle, which, in the ptic, that is, the Egyptian language, was called *m*, was used by the Egyptians for the sound *A* in neral. The other direction was taken by the inese, who founded their art of writing on the logy of ideas. Thus, for instance, all the words ich express manual labour or occupation, are posed, in their written language of the character ich represents the word *hand*, with some other, ressive of the particular occupation intended to designated, or of the material employed.

Plato tells us that Thoth, secretary to the Egyptian g Thamus, invented the alphabet, and Champol-n has actually discovered that the Egyptians had a l of hieroglyphic writing, which was merely phone-that is, was composed of a series of signs not having rence to the objects represented, but merely to sounds of the words expressed. Thus the figura-signs passed over into mere phonetic characters. s was not only the case in Egyptian writing: the ies of the letters of the Hebrew alphabet lead us uppose a similar transformation. We quote the owing passage from a note of professor Moses art to his son's translation of J. G. H. Greppo's ay on the Hieroglyphic System of M. Champol-, Jr. "One need only to read the interpretation he names of the Hebrew alphabet successively, rder to believe that, originally, there was some analogy between the shape of the respective letters, and the objects by whose names they are called. For example, beginning with the alphabet, we proceed thus: *ox, house, camel, hollow, hook, armour, travelling-scrip, serpent, hand, hollow-hand, ox-goad, water, fish, prop, eye, mouth, screech-locust, ear, head, tooth, cross*. These make out the whole original alphabet of the Hebrews; and no one can well suppose that these names rather than others were given to the letters, except on account of some resemblance between them and the objects which bore these names. That the resemblances to these respective objects are not found in the present Hebrew alphabet, is no argument against the position; for all critics are agreed that the ancient Hebrew letters have exchanged their forms for those of a later alphabet," &c. So far professor Stuart.

Before we give the system of Egyptian hieroglyphics, according to Champollion's ingenious discoveries, one remark may be allowed to us. In a certain sense of the word, the course which the Chinese have taken may be considered more philosophical than that of the invention ascribed to Thoth, the former being founded on the combination of ideas, and the latter on the mere external sounds; and yet the latter system has become, at least in our view of the matter (a Chinese, of course, would differ from us), much the more important. By about forty signs we are able to express almost every sound, and, through them, every idea in its various shades (and, with most languages, from twenty-three to twenty-seven signs are sufficient), whilst the Chinese have 10,000 characters in common use. Our system has become much the most abstract, and with this the Chinese reproach it, when they say, "That which enters the mind of a European enters through the ear" (meaning that our letters represent sounds), "while what enters the mind of a Chinese enters through the eye" (meaning that their signs designate immediately ideas); and the learned Remusat mentions the lively effect of the Chinese picture-writing, in comparison to that of our conventional signs. We can easily believe him. Suppose the Chinese to designate the word *tyrant* by a sign which their well executed writing should show to be derived from a tiger. But the difference, in common cases, is not probably so great as at first appears. In general, if we read a book, the signs do not suggest to us the sounds which they represent, and then the ideas (though this is the case with children and illiterate people, who are accustomed to read loud, or, at least, moving the lips, a proof that, to them, the characters actually represent the sounds), but, from habit, the word suggests an idea. If we read, for instance, a word like *loveliness*, the idea which it represents is not produced within us by the slow process that the characters for *love* remind us of the sound *love*, and then of the idea, next *li* of *lovely*, and, at last, *ness* of the sound, and the general meaning of this syllable, and then the whole word of the sound *loveliness*, and the idea which this sound is intended to convey; but the whole word presents itself as one sign to the eye, and suggests, at once, the idea of *loveliness*. Now, generally speaking, there is probably the same process in the mind of a Chinese in common cases. He sees the sign, and it produces, at once, the idea. We may remark, too, as an advantage of our mode of writing, that the etymology of a word frequently has a wonderful effect on us, particularly in original languages, as Greek or German, and, to a certain extent, in derivative languages, as Italian and English. With these reservations, we may allow, that, in certain cases, the Chinese writing may have a much superior effect upon the mind, by presenting a

visible image of the thing signified, since impressions received by the eye are almost always much more lively than those conveyed by sounds. A play, read in a room, does not excite our sorrow or our mirth so much as if we see it represented, and a hundred things may well be said or written, which would be considered highly improper or disgusting if painted or drawn. This explains what Champollion says of the remarkable effect which hieroglyphics have on one who understands them, because they include both symbolic and phonetic characters.

We will now give a survey of the hieroglyphic system. The characters used by the ancient Egyptians, before their conversion to Christianity (after which they adopted the Greek alphabet, with a few supplementary letters), were threefold; 1. hieroglyphic; 2. hieratic; 3. demotic. The first were composed of images of visible objects; the second, of rude and indistinct outlines of the whole, or of parts of such images; and the third, of a still farther reduction of such outlines in a similar manner. The first kind, from which the others were derived, was originally a real picture-writing, representing ideas by their visible images when possible, or by obvious symbols when any direct representation was impossible. This mode of writing is only suited for a nation in the first stages of civilisation, and man would soon discover some more complicated, but more perfect mode of representing what is usually expressed by words, of speaking, in short, by means of visible signs. But words are combinations of sounds, and the next step, therefore, was to devise some method of expressing sounds. As soon as such a device was adopted, any combination of sounds, that is, any word, whether the name of a visible object or of a mere abstraction, could be immediately represented to the eye. The Egyptians who were, as every day shows more clearly, the most civilised of all nations known to us at a very remote period, arrived at this point very early. They selected several common and well known hieroglyphics, such as immediately suggested some word of frequent occurrence, and used them to express the initial sound of that word, or, as we should say, its first letter. The more simple outlines or fragments of these hieroglyphics, used in the hieratic character, would therefore have the appearance, as well as perform the functions, of letters; and, when rounded off into the demotic, epistolographic, enchorial (q. v.) or running-hand, would lose all resemblance to the figures from which they were originally derived. It is plain that these last characters might entirely supersede the use of hieroglyphics, or other symbols, from the facility with which they were formed. We shall see that they actually did so, for the ordinary purposes of life. Thus the demotic characters were, as has been now settled beyond doubt, nearly, if not strictly, alphabetical. The hieroglyphic character was thus rendered capable of expressing sounds, and consequently words, independently of pictured signs. These signs are, according to Champollion's great work, *Précis du Système Hiéroglyphique* (Paris, 1824), divisible into three distinct classes: 1. figurative signs, such as were the images of the things expressed; 2. symbolic; 3. phonetic, or expressive of sound. At a later period, probably, a fourth class was brought into use; that of enigmatical symbols, derived either from some very remote affinity between the object represented and the idea implied, or formed by a combination of different figures, apparently incapable of being thus united. We will mention here, in the outset, that Champollion's object, in the work above referred to, is to demonstrate the six following important points:

1. That the phonetic-hieroglyphical alphabet can be applied with success to the legends of every epoch indiscriminately;

2. Which is, in fact, the consequence of the first statement, that this phonetic alphabet is the true key of the whole hieroglyphical system;

3. That the ancient Egyptians constantly employed this alphabet to represent the sounds of the words in their language;

4. That all hieroglyphical legends and inscriptions are composed principally of signs purely alphabetical;

5. That these alphabetical signs were of three different kinds, the demotic, hieratic and the hieroglyphical, strictly so called; and,

6. That the principles of the graphic system, which he has laid down, and which he proves by a great variety of applications and examples, are precisely those which were in use among the ancient Egyptians.

As all visible objects, with all their parts, and in almost any position, besides an endless variety of arbitrary combinations, come within the scope of the hieroglyphic draughtsman, it might, at first, be supposed that the number of the characters would be almost unlimited; but the necessity of limitation must soon have been felt, for unless the sense assigned to each character was fixed, the reader would be lost in vague conjectures, and, unless the number of characters was confined within certain bounds, no memory could retain them all. The whole number therefore observed by M. Champollion, after more than twenty years' study, was only 864, of which perhaps some are duplicates. He arranges them in the eighteen following classes:

Celestial bodies,	36
Human figures in various positions,	139
Human limbs, taken separately,	68
Wild quadrupeds,	28
Domestic quadrupeds,	70
Limbs of animals,	22
Birds, either whole or in parts,	130
Fishes,	10
Reptiles, either whole or in parts,	20
Insects,	14
Vegetables, plants, flowers, and fruits,	60
Buildings,	24
Furniture,	100
Coverings for feet and legs, head-dresses, weapons, ornaments, and sceptres,	69
Tools and instruments of various sorts,	130
Vases, cups, and the like,	29
Geometrical figures,	25
Fantastic forms,	19
Total	864

The figures were arranged in columns, vertical or horisontal, and grouped together, as circumstances required, so as to leave no spaces unnecessarily vacant, which of course would often have happened, had they written their signs successively, as we do our letters, since the signs differ so much in shape and size. Here we must remember that the hieroglyphic writing is eminently monumental. Its special use was in inscriptions that were engraved or sculptured upon public edifices. It is also found executed in similar ways, upon objects which preserve the religious or domestic usages of ancient Egypt. It is delineated in numerous manuscripts; also on the wooden coffins of the mummies, and, finally, upon harder substances, such as baked or enamelled earth, &c. Hence, both from the nature of the signs employed, and from the situations in which they were chiefly used, the hieroglyphic writing is a species of painting, and the reason of the rule just stated is therefore easy to be conceived. Beauty of appearance was never forgotten, and Champollion, in his letters from Egypt, dwells on the fine appearance of these various objects, executed with admirable exactness, and often painted with colours, which still

continue very bright. The general order in which the characters are to be perused, is shown by the direction in which they are placed, as their heads are invariably turned towards the reader, or which is the same thing, to that side of the tablet at which the inscription begins, whether it be right or left, for either was admissible in the pure hieroglyphic, though not in the demotic character. To this general rule, Champollion has met with only one exception in a hieroglyphical MS. in the royal collection; the figures, therefore, form a sort of procession, and seem, from their relative position, to be connected with each other. The figurative, or, as they are called by the English, the *pure hieroglyphics*, i. e., the images of the things signified, occur often either in an entire or an abridged but intelligible form; and some of that class were often used merely to determine the sense of the preceding figures, just as capital letters are employed by us to distinguish proper names or words of peculiar importance. This was the more necessary among the Egyptians, as their names were all significant, and liable to be taken as such, unless accompanied by some indication of their peculiar use. The hieroglyphic of *man* or *woman*, *god* or *goddess*, was consequently subjoined, according to the sex of the person or deity named. Thus the characters expressing *Ammon mai*, when alone, signify *Beloved by Ammon*; but, when followed by that which stands for *man*, represent a proper name, which the Greek would probably have expressed by *Philammon* or *Ammonophilus*: temple, image, statue, child, asp, and monumental pillar were in like manner, expressed by figures, evidently representing the things meant. In the bass-reliefs at Medinet-tabu, the scribe recording a victory, has a hand with ciphers, expressing 3000, placed in the hieroglyphic column over his head, plainly indicating 3000 hands of men, slain or conquered in battle. Above this is the figure of a man, followed by 1000, evidently signifying 1000 prisoners taken. (*Précis*, pl. xix., fig. 1, 2.) The figure or outline of a boat, followed by a line signifying *n* (i. e., *of*), and the name of a god, signifies the vessel of that god in which his image or shrine was carried on solemn occasions. *Sun, moon, star, vessel, scales, bed, bull, loaf, sistrum, fish, goose, tortoise, ox, cow, calf, haunch, antelope, bow, arrow, sh, altar, censer, flower-pot, enclosure, chapel, shrine*, &c., are among the words expressed hieroglyphically, by images of the objects themselves. These hieroglyphics, therefore, are called, by Champollion, *figurative proper*. Other terms, such as *sky* or *firmament*, and the names of the different gods, are rendered by very obvious symbols, still in some degree representing the object expressed, at least, according to the notions and dogmas of the Egyptians; the former, by the section of a ceiling, with or without stars subjoined; the latter, by an outline of the animals sacred to the deity to be represented. These are termed *figurative conventional*. Sometimes only part of the object to be represented is painted or engraved, as the plan of a house, instead of a house itself. These hieroglyphics are called *figurative abridged*. Abstract ideas, however, could not well be expressed by images of visible objects; and metaphors, common in spoken language, when clothed in a visible form, gave birth to a second class of hieroglyphics— that of images used in a symbolical sense. These are the characters generally alluded to by the ancients, when they speak of hieroglyphics; and the circumstance that they are, from their nature, more abstruse and difficult of interpretation, was the occasion of the prevalent but mistaken notion, that all the figures on the Egyptian monuments were strictly symbolical—an error which led the learned world, for so many centuries, to such extravagant and contradictory interpretations. Almost all the figures of speech are, if we may so express it, placed before the eye by this class of hieroglyphics. "Two arms stretched up towards heaven" expressed the word *offering*; "a censer with some grains of incense," *adoration*; "a man throwing arrows," *tumult*. These instances, therefore, furnish examples of *synecdoches*. *Metonymies* are exhibited in "a crescent, with its horns bent down," for *month* (*Horapollo, II.*, 12); in "a pencil and a palette," or "a reed and an inkstand," for *writer, writing, letter*, &c. The "bee," to signify *an obedient people*; "forequarters of a lion," for *strength*; "a hawk on the wing," for the *wind*; "an asp," for *power of life* and *death*; are so many metaphors symbolically expressed. As we are unacquainted with many of the ancient notions, prejudices, &c., and therefore with many of their associations of ideas, and with the transitions of meaning which many signs must have undergone, this class is the one which will always cause the greatest trouble to the decipherer. An ancient Egyptian writer, Horapollo (*I*, 20), tells us, that *paternity* and the *world* were expressed by the figure of a "beetle;" *maternity* by a "vulture." Who could have ascertained the signification of these signs, if not assisted by direct information of this kind? The head of the animal sacred to a deity, is often placed upon the figure of a man, to signify the deity itself. This certainly produced figures monstrous to us, but it is founded on the notion, which has prevailed among mankind from time immemorial that some particular animal enjoyed the protection of some particular god. Even at present, in many Christian countries, certain animals are believed to be under the particular protection of certain saints; certain animals, too, are used in paintings, as symbolical accompaniments of apostles and saints.* Now the Egyptians, in writing their hieroglyphics, put the head of this animal upon the statue, instead of putting it by the side of it, as the owl is placed, by the Greeks, by the side of Minerva; thus the figure of a man, with the head of a ram, signified *Jupiter Ammon*; with the head of a hawk, the god *Phré*; with the head of a jackal, *Anubis*, and so on. The gods were also represented, by leaving out altogether the figure, and exhibiting only the sacred animal, with some of the divine attributes. Thus a hawk, with a circle on its head, signifies *Phré*; a ram, having its horns surmounted by a feather, or, more generally by a circle, *Cnuphis*, &c. Lastly, there is a kind of hieroglyphics for the Egyptian gods, which we may call either *symbolic* or *enigmatical*; such as an *eye* for *Osiris*; an *obelisk* for *Jupiter Ammon*; a *nilometer*, for the god *Phtha*. Spineto (see lecture iv. of his valuable *Lectures on the Elements of Hieroglyphics*, &c., London, 1829) ascribes these hieroglyphical representations of the deities to the sacred dread which all Oriental nations, and even, in some degree, the Greeks and Romans, had of pronouncing the names of the gods. "And although we find," he says, "these mystic names expressed phonetically in the hieroglyphical legends, yet we are to remember that the characters themselves were considered as sacred, and peculiarly fitted to be employed in religious matters. This is so true, that in all documents written in the demotic or common characters of the country, the names of the gods and goddesses were invariably written symbolically; just as the Jews never wrote at full length the ineffable name of *Jehovah*, but always expressed it by a short

* An instance of a true hieroglyphic, among Christians, is the sign for the Deity, a triangle (alluding to the Trinity), with an eye in the middle (alluding to God's omniscience)— a hieroglyphic found in all Roman Catholic and Protestant countries of the European continent; for instance, on organs, over the altars, &c.

mark, which they pronounced *Adonai*." Champollion openly asserts that the Egyptians wrote the names of their principal deity, at least, in one way, and pronounced it in another. As the Egyptians were a civilised nation, it is clear that hieroglyphics like those described (we mean the figurative and symbolical) could by no means suffice to designate their various wants, occupations, and ideas; and this want may be reasonably supposed to have led to the invention of the third class of hieroglyphics, which M. Champollion calls *phonetic*, i. e., designating a sound. He has also discovered the principle on which these signs were chosen to express one certain sound; it is this, that the hieroglyphic of any object might be used to represent the initial sound of the name of that object. The following table shows this more clearly: the first column gives the letter expressed by a hieroglyphic; the second, the English name of the object represented; and the third, the corresponding word in the Coptic (i. e., Egyptian) language.

Letter.	*Hieroglyphic.*	*Egyptian Name.*
A,	an eagle,	ahom.
—,	a piece of meat,	af *or* ab.
A, O,	a reed,	aka *or* oke.
B,	a censer,	berbe.
K,	a knee,	keli.
K,	a basin,	knikiji.
G,	———,	gdikiji.
K,	a cup,	klaft.
T, Th,	a beetle,	torres. / thorres.
L,	a lion,	laboi.
M,	an owl,	moulaj.
—,	water,	môou.
N,	inundation,	neph.
—,	vulture,	noure.
P, Ph,	mat,	prêsh. / phrêsh.
R,	mouth,	rô
—,	tear,	rimé.
—,	pomegranate,	roman.
S,	star,	sion.
—,	child,	si.
—,	egg,	sounhi.
T,	hand,	tot.
—,	wing,	ten-h.
SH,	garden,	shaié.
—,	antelope,	shash
J,	swallow,	jal.
Kh,	fan,	khai.

This principle being admitted, it follows, that the number of phonetic hieroglyphics might be increased almost without limit, as the names of a great many different objects might have the same initial sound. The whole number of elementary sounds intended to be represented was twenty-nine, which is certainly very great for so early an alphabet—a circumstance which deserves still more attention, if we consider that phonetic hieroglyphics were in use with the Egyptians from time immemorial (see Spineto, page 95 et seq.) The great number of hieroglyphics, which the principle above-mentioned would assign to each of these sounds, would have been a continual source of error. The characters, therefore, thus applied, were soon reduced to a few; and, as far as has been hitherto ascertained, eighteen or nineteen is the largest number assigned to any one letter, while few have more than five or six representatives, and several only one or two. The pronunciation of the Egyptian language was, probably, rapid and indistinct; besides, several dialects were spoken in different parts of the country, and thus consonants were easily interchanged, as we find to be the case at present with so many languages. This was probably one of the reasons, or the only one, that the vowels are so often left out in the hieroglyphics; just as is the case in Hebrew. The rule which may be considered as having generally guided, in choosing between so many signs for the same sound, was, to take that sign which seemed most appropriate to the meaning of the word which was to be written phonetically. If the name of a king was to be written, those phonetic hieroglyphics would be taken, which represented things of a noble character. The goose, called *chenalopex*, we find usually representing the *S* of *Si*, the word for *son*, on account, as Horapollo says, of the attachment of this bird for its young. If we had to write the word *London* in hieroglyphics, and were to choose between the sign of the *land* and of the *lion*, both of which might be used for an *L*, we should certainly take the latter, on account of the heraldic relation which this animal bears to England; and, for the *N*, we might choose, among the many figures capable of representing it, that of a *fishing net* or a *navy*, as reminding us of the sea, to which London is so much indebted; and so on. Thus the *eagle* is frequently used for *A*, in the names of Roman emperors, and the *lion* for *L*, in those of Ptolemy and Alexander. With the Chinese *king-ching* (q. v.), or phonetic signs, a similar choice takes place. This is a great addition in writing certain words, because it assists in conveying a favourable or unfavourable idea, and thereby adds to the force of the word itself. What a scope for wit would such a choice of signs afford, in the correspondence of modern fashionable society! The Egyptians used a very great number of abbreviations in writing phonetically, of which the late doctor Young has shown many in the registries of deeds, drawn up under the Ptolemies, and published by him. Though, as we have stated, Champollion considers the phonetic alphabet the true key to the whole hieroglyphical system, all the sorts of the hieroglyphical characters are used together; and, had not so much already been done by the critical ingenuity of the learned, we should almost despair of ever being able to read inscriptions, in which such different signs are used promiscuously; yet we are informed that Champollion has acquired much skill in deciphering these writings, so mysterious for thousands of years, and reads most of them with comparative ease. Those hieroglyphics, which are called *enigmatical*, may be considered a division of the symbolical. They are a more complicated and obscure kind, probably formed by the *anaglyphs* or allegorical sculptures, mentioned by Clement of Alexandria. They appear to have been bass-reliefs or tablets, containing mythological or historical subjects, expressed in allegorical delineations, or implied by the figures of human beings, with heads of birds and beasts, such as those with which the Egyptian temples were filled; and among which we must rank the sphinxes, forming avenues at their entrance. Symbols such as these, grouped and combined according to certain rules, might be so disposed as to form an allegorical representation of the religious and philosophical doctrines of the Egyptians. None but the initiated were suffered to dive into these mysteries, and the key to them was kept exclusively in the hands of the priesthood. As the ordinary style of hieroglyphics must have been legible for every well educated Egyptian, a more refined system was devised; a language more strictly ideographical was invented; metaphors, similes, imagery, and allegory were imbodied in actual forms, and the links, connecting the chain of ideas thus expressed, were implied, either by the relative position of figures, their attributes, or their ornaments, so as to present to the eye of the initiated an intelligible, and, if such an expression may be allowed, a legible picture, in what appeared to the uninitiated an incoherent tissue of extravagance. "The images of the gods in the sanctuaries, the human beings with heads of beasts, or beasts with human limbs, might be termed," says Champollion (*Precis*, 427), "the *letters* of that sacred writing, which consisted of the anaglyphs or enig-

matical sculptures, forming the fourth class of hieroglyphics." "It was in this sense, probably," he adds, "that the Egyptian priests called the ibis, the hawk and the jackal, the images of which were carried in procession on certain solemn occasions, *letters* (γεγραμμένα, Plutarch, *De Iside et Osiride*), as being the true elements of a sort of allegorical mode of writing." It is in the interior of their temples and their sepulchres, that these symbolical records are found "distinguishable without difficulty," says the same writer, "from the historical scenes and civil or religious ceremonies, represented in the bass-reliefs and paintings on the walls of their public buildings." The origin and characteristics of the *hieratic* or sacred character, so denominated to distinguish it from the *demotic*, or popular, have already been briefly stated. It consists of nothing more than imperfect and dashing sketches of the hieroglyphics, which thus assumed the form of a flowing and rapid hand. For figures and symbols, it often substitutes phonetic groups or arbitrary characters, which bear no resemblance to the hieroglyphics for which they stand. Religion and science, both fostered by the priest, seem to be the only subjects for which this character was used; nor did it undergo any material change in its form and structure, during the many ages through which it was used, resembling, in this respect, the use of a *court hand*, as it was called for centuries, in copying records and other legal proceedings in England and the continent of Europe, and the long continuance of a particular phraseology in legal instruments. The real hieratic character resembles the Chinese, and is written with as much rapidity. One peculiarity of this character deserves notice here. In hieratic text, the oval frame enclosing the name of kings, called *cartouche* (q. v.), is expressed by a semicircle at the beginning of the word, as might be expected; but at the end, instead of a corresponding curve, followed by a straight line, expressive of the remainder of the frame, as is usually the case in the demotic character, three, four, or five dashes, either straight or slightly curved, are substituted for it. The common Egyptian character, called *demotic* from its popular use, *epistolographic* from its fitness for letter-writing, and *enchorial* from its being peculiar to Egypt, and distinct from the Greek, so familiarly known there under the Ptolemies, seems to have been derived from the hieratic by nearly the same process as the latter from the hieroglyphics. It is, however, more simple; not strictly alphabetic, because a small number of images or figures are still found in it; some few symbols, also, connected with religious subjects, occur; but these figures and symbols are almost invariably so curtailed and simplified, as to lose all resemblance to the objects expressed. The whole, therefore, has the appearance of a written alphabet. The number of equivalent signs is much smaller, the whole of those which clearly differ from each other not exceeding forty-two. In the direction of the lines from right to left, and in the suppression of many vowels, this system of writing resembles that of the Phœnicians and Hebrews.

Numeration by Hieroglyphics. The units are expressed by single upright strokes, and they are always repeated to mark any number below 10. The number 10 is represented by an arch, either round or angular. The repetition of these arches produces the repetition of as many tens up to 90. A hundred is exhibited by a figure very much resembling our 9. This same figure is again repeated for every 100, for any number below 1000. One thousand is represented by a cross, over which is a figure like ↄ. Thus, to express the numbers 2, 3, 4, 7, &c., we are to mark 2, 3, 4, or 7 upright strokes. To signify 20 or 90, we are to write 2 or 9 angular or round arches: the number 42, for instance, is expressed by 4 arches, which mean 4 times 10=40, and by 2 upright strokes, which mean 2. To signify the ordinal numbers, we are to place at the top of each of the numbers a figure, which resembles our 8 placed horizontally (∞); thus a single upright mark, with the horizontal ∞ over it, would signify *first;* and, if this figure be changed into one like the three sides of a square, then the numbers will signify the *first time*, &c. (*Spineto*, lect. ii., p. 72). This system, though much inferior to that admirable invention, by which the place of the number indicates what product of 10, or 100, or 1000, &c., it is, is yet greatly superior to the Greek and Roman numeration.

Upon what basis does all this theory rest? The answer to this question is the account of one of the most ingenious discoveries in the history of mankind; and, if the invention of the fluxions, by Newton, and the infinitesimal calculus, by Leibnits, is designated as the most brilliant proof of the calculating and abstractive power of the human intellect, the deciphering of hieroglyphics, which, for thousands of years, lay before us sealed up, may well be called the masterpiece of criticism. We shall here give a brief outline of the history of this discovery, which has become still more interesting of late, by the dispute for priority between the French, who claim it for their countryman Champollion, and the English, who claim it for the late doctor Young, though impartial readers will probably decide for the former, without any derogation from the great merits of doctor Young. It has been erroneously asserted, that the hieroglyphic writing was a mystery known only to the Egyptian priests, and carefully concealed by them from the world. This opinion is directly contradicted by a remarkable passage of Clement of Alexandria (*Stromata*, v. 657), who expressly states, "that the educated Egyptians learn, first, the Egyptian manner of writing called *epistolographic* (enchorial or demotic), then the hieratic, and, finally, the hieroglyphic." But, at a later period, after the introduction of Christianity, when the Grecian alphabet was adopted in Egypt, the old modes of writing were neglected, and even the knowledge of them became finally lost. If we derive no information from the Greek and Roman authors on this subject, it may be accounted for on the ground, that they considered it too well known to require explanation; and in fact the passage of Clement of Alexandria, above referred to, is so general as to have been entirely unintelligible, before the discoveries of modern scholars had explained it. At the epoch, then, of the revival of learning, nothing was known of the nature of hieroglyphics. The Jesuit Kircher involved the subject in a learned smoke in the seventeenth century. Warburton (*Divine Legation of Moses*) discussed the ancient texts, and made some approach to the discovery of alphabetic characters; but it was reserved for the nineteenth century to solve this great enigma. The learned Zoega, a Dane, in his celebrated work *De Obeliscis*, which appeared in 1800 (dated 1797), threw a strong light on Egyptian antiquities and history. Quatremère, a Frenchman, demonstrated the identity of the Coptic and the Egyptian language in his *Recherches sur la Langue et la Littérature de l'Egypte*—(1808)—a most important and indispensable step in the progress of discovery. But the monument which led directly to the knowledge of the Egyptian manner of writing, was the Rosetta stone, a mutilated block of basalt dug up at Rachid (Rosetta) in Egypt, by the French troops, when building the fort St Julien. This stone contained an in-

scription in three characters, one of which, in Greek, concluding with these words, was found to contain a decree in honour of Ptolemy Epiphanes; "This decree shall be engraved on a hard stone, in sacred, common, and Greek characters" (ἱερᾳ καὶ ἐγχωρίῳ καὶ ἑλληνικῃ γραμματι.) The stone fell into the hands of the English after the French troops in Egypt had capitulated, and was deposited in the British museum. The society of antiquaries in England undertook the investigation of the stone, and caused an engraving of the inscription to be distributed to learned individuals and societies in Europe and America. Porson (q. v.) and Heyne (q. v.) furnished translations of the Greek text, which was rendered very difficult by the mutilation of the stone and other circumstances. The next attempts were directed to the enchorial text. The distinguished Orientalist Sylvestre de Sacy, in Paris, detected the words *Alexander* and *Alexandria* from their corresponding situations in the enchorial and Greek text, his attention being attracted by the repetition of a certain group of equal signs. Mr Akerblad (q. v.) a Swede, constructed an alphabet of the enchorial character, which has not, however, proved correct in all points. Doctor Young next furnished an interpretation of the enchorial text by placing it side by side with the Greek text, in which he was guided by the recurrence of the proper names, and employing the alphabet of Akerblad in deciphering it. His first writings were in the eighteenth volume of the *Archæologia* (1815), and in the *Museum Criticum* (part vi, 1815); but the most important of his productions at this period was the article *Egypt*, in the Supplement to the *Encyclopædia Britannica*. On these papers are grounded the claims of doctor Young, whose merits are undoubtedly great, to the priority in the discovery of the interpretation of hieroglyphical writing, which, we think, can be shown to be without foundation. In 1822 appeared M. Champollion's letter to M. Dacier, in which the phonetic theory is fully displayed. Two years afterwards, Champollion published his *Précis du Système Hiéroglyphique* (1824), of which a second edition appeared in 1828. In this work he has perfectly developed his great discovery of the phonetic character of the hieroglyphics; he has deciphered the proper names of sovereigns of Egypt from the Roman emperors back through the Ptolemies, to the Pharaohs, of the elder dynasties, and detected the hieroglyphical expression of a large number of natural relations, grammatical accidents, and terms of the vocabulary. His labours have already thrown a great deal of light on the early history of Egypt; the walls of the temples and obelisks, and of monuments like the Rosetta stone, are covered with historical inscriptions, and a great number of papyri are in existence, written both in hieroglyphics and enchorial character; and M. Champollion has lately returned from the land of mysteries with a great mass of materials for future researches. An impartial examination of doctor Young's article *Egypt*, we think, will show that he is not the author of this great discovery. In the sec. vii. of the article, entitled "Rudiments of a Hieroglyphical Vocabulary," he attempts to analyse and interpret 218 characters or groups of characters, in going through which he nowhere distinctly asserts that any of them are phonetic; and M. Champollion has rejected 141 of his explanations as erroneous. After an analysis of the name of Ptolemy, which is altogether erroneous, he says that this is an instance "of the few proper names, in which some of the steps may be traced, by which alphabetical writing seems to have *risen out of* the hieroglyphical." His analysis of Berenice, group No. 60, furnishes another specimen of the actual amount of doctor Young's knowledge of the alphabetic character of hieroglyphics. Now it may be observed, that he proposes this analysis in two out of more than two hundred groups, without any intimation of there being any thing novel or important in it; he gives them as specimens of the manner in which, "*in a few proper names*," traces of a transition from hieroglyphic to alphabetic writing may be found; many of the characters he reads as syllables; he proceeds, when possible, by identifying the hieroglyphic figures with the enchorial characters, which latter he expressly declares to be not alphabetical; and, finally, at the end of his vocabulary, he says, "the phonetic characters will afford something like a hieroglyphic alphabet, which, however, is merely collected as a specimen of the mode of expressing sounds in some particular cases, and not as having been universally employed, where sounds are required." Champollion's own statement of the difference between his own system and doctor Young's is sufficiently clear on this point. Lastly, we must mention the system of Spohn and Seyffarth, two German professors. The former is recently dead, and the latter has developed farther the system of the former; which is chiefly that the Egyptians originally borrowed their alphabet from the Phœnicians (Spohn having discovered some real or apparent resemblance between some demotic letters and Phœnician characters), but that, the Egyptians being fond of variety, they first increased the number of their ordinary characters very amply; then, from the same love for caligraphy, gave them the forms now found in the hieratic texts; and, lastly, by way of attaining the acme of caligraphic excellence, arranged all sorts of figures of all sorts of things in something like forms, or assumed them as symbols of their letters, in order to serve as substitutes for them. These are the hieroglyphics; so that, in this case, against all probability, the human mind would have proceeded from the simple to the complicated, the reverse of what generally and very naturally takes place. This system, too, assumes the Rosetta stone as its basis. See *Rudimenta Hieroglyphices*, Leipsic, 1826, a work published from the papers of Spohn by Seyffarth, who is a professor at Leipsic.

For further information on the subject of hieroglyphics, see Champollion's *Précis*, his letters to the duke of Blacas d'Aulps, and his letters written from Egypt; doctor Young's article *Egypt*, in the Supplement to the *Encyclopædia Britannica*, his Account of Egyptian Antiquities (London, 1823, &c.); Jablonski's *Pantheon Ægyptiacum*, and the marquis Spineto's Lectures, which, though it contains a few theories perhaps too boldly advanced, yet is a lucid and excellent work. The translation of M. Greppo's work, by Mr Stuart, which we have mentioned already, besides the information on hieroglyphics which it contains, strives to show how important this knowledge may become for biblical criticism.

Chronological Periods of Egyptian History—which are of great importance for the subject of this article. From the histories of Egypt by Manetho, Herodotus, Diodorus, Strabo, Plutarch, and others, and from the discoveries of Champollion, chronologists have been led to divide the history of the Egyptian empire into five periods. They are described as follows by the marquis Spineto (p. 15, seq.): "The first begins with the establishment of their government, and comprehends the time during which all religious and political authority was in the hands of the priesthood, who laid the first foundation of the future power of Egypt, founding and embellishing the great city of Thebes, building magnificent temples, and instituting the mysteries of Isis;—from Misraim to Menes.—The second period begins at the abolition of this primitive

government, and the first establishment of the monarchical government by Menes. From this time commences what is generally called the Pharaonic age, which ends with the invasion by Cambyses. This is doubtless the most brilliant period of the Egyptian monarchy, during which Egypt was covered with those magnificent works, which still command our admiration and excite our astonishment; and, by the wisdom of its institutions and laws, and by the learning of its priests, was rendered the most rich, the most populous, and the most enlightened country in the world.—The third epoch embraces nearly 200 years, and begins with the overthrowing of the empire of the Pharaohs by Cambyses, 529 B. C., and ends at Alexander.—The fourth epoch embraces the reign of the Ptolemies. It begins at the death of Alexander, or rather at the elevation of Ptolemy Lagus to the throne of Egypt, 323 B. C., and ends at the death of the famous queen Cleopatra, when that kingdom became a Roman province.—At this period, which precedes the birth of our Saviour by two years only, the fifth epoch begins, and continues to the time when, about the middle of the fourth century, the Christian religion having become the religion of the country, the use of hieroglyphics was for ever discontinued, and the Coptic characters were generally adopted."

We shall now exhibit an outline of Egyptian mythology, taken from an Appendix, by professor Stuart, to the above translation of Greppo. Mr Stuart principally follows Spineto. We give more room to it than to corresponding articles relating to other nations, on account of the high and increasing interest of the subject, and the little knowledge generally possessed respecting it.—"The origin of the world from a dark primitive chaos, is a dogma belonging not only to almost all the Oriental nations, and to many of the Greek schools, but fully believed by the ancient Egyptians. Mind and matter were supposed by them to have coexisted from all eternity, and it was the influence of mind upon matter, which reduced the latter to form, and brought it forth from darkness to light. The ancient Egyptian philosophers all represent this mind as infinite and eternal; as presiding over all other gods, both spiritual and material; as having given origin to the world, and as governing and penetrating through all nature. This supreme mind was the Demiurgos of the Egyptians, their god Ammon. It would be interesting here to trace out the analogy between the philosophy of the Greeks and Egyptians, about the origin of the world and of the souls of men. But we can only divert, at present, to a few traits. The theory of Orpheus about an immense *egg* of matter, from which, by the fiery nature of spirit, the world was hatched, was borrowed from the Egyptians, and was carried by him from Egypt into Greece, where it became the basis of the Stoical system of active and passive principles. Again, that belief in the spiritual origin of the soul, which may be traced in much of the philosophy of Greece, sometimes in a pure form, and sometimes more or less adulterated, was also an important dogma of the Egyptians, though by them was blended with the doctrine of metempsychosis. Jablonski, after collecting strong evidence of this fact from ancient writers, thus describes the views which the Egyptians had of the soul: 'Nempe anima, secundum Ægyptios, erat το θειον, *Divinitas*, vel *Essentia Divina*, quæ a sede suâ veluti delapsa, quamdiu per homines et animalia transibat, donec pristinum locum rediret.' (*Pantheon Egyptiacum*, 32.) All the animated part of creation being distinguished by sexes, and the Egyptians regarding nature as productive and animated, they were thus gradually to transfer their notions of gender to Ammon, who generated all things. In one point of view, however, they acknowledge both a *male* and *female* principle in this supreme god of their theogony. One of the symbols made use of to represent Ammon was the head of a ram, or a ram holding between his horns a circle.* Wherever either of these symbols occurred, this deity was called *Nef*, *Nouv* or *Chnouphis*,† *Noub* or *Chnoubis*; all which appellations are proved, by Champollion and by M. Letronne, to signify one and the same attribute of Ammon, viz., his *male nature*. In this form, Spineto remarks, that 'he was considered as one of the modifications, or rather an emanation, of the great Demiurgos, the primitive cause of all moral and physical blessings. He was then called the *Good Genius*; the male origin of all things; the spirit which, by mixing itself in all its parts, animated and perpetuated the world.' Virgil describes him very well in his *Æneid*, lib. vi. 726;

Spiritus intus alit, totamque infusa per artus
Mens agitat molem, et toto se corpore miscet.

He is sometimes symbolically represented by a large serpent, which designates him as the spirit who flows through the whole earth. It is this spirit to which Horapollo refers in the following passage:—Οὕτω γαρ' αυτοις του παντος το δημιον νενι πνευμα (*Hieroglyph.*, lib. i. cap. 64.). In this form he is called *Agathodæmon* by the Greeks. The female principle in nature was represented by the goddess Neith, another emanation from the Demiurgos. 'This goddess,' says Spineto, 'occupied the superior part of the heavens, inseparable from the first principle, and was considered also as presiding over the moral attributes of the mind. Hence wisdom, philosophy, and military tactics, were departments that had been attributed to her, and this consideration persuaded the Greeks to look upon her as their *Minerva*, who was regarded as equally the protectress of wise men and warriors.' The similarity between the Egyptian *Neith* and the *Minerva* of the Greeks, is indeed very striking, and goes far to prove that the Greeks derived their goddess from Egypt. Besides the identity of their offices, both presiding over philosophy and war, the origin of both is similar. The Neith of the Egyptians was an emanation from Ammon, their supreme god; the Minerva of the Greeks sprung from the brain of Jupiter, the supreme god of the Grecian mythology. According to St Croix, Egyptian colonies from Sais carried over the ceremonies of Neith to Athens, where she became the *Athm* of the Greeks (the Minerva of the Latins). At the period when she was introduced into Athens, the partisans of Neptune suffered severe persecution, and Neptune was entirely supplanted by Neith. This fact gave rise to the fable about the contest between this goddess and Neptune. The goddess Neith was symbolically represented by a vulture, which is the usual image of *maternity*. Her peculiar place of worship was in the city of Sais, where she had magnificent temples, one of the propylæums of which, on account of the enormous size of the stones and colossal statues, is said, 'to excel every thing of the kind before seen in magnificence and grandeur.' The following inscription, in hieroglyphics, upon one of her temples, is very remarkable, both, 'as giving a sublime idea of the creating power of nature,' and as presenting a striking correspondence with the idea given in Scripture of the Supreme Being. It is thus interpreted by Champollion: '*I am all that has been, all that is, all that will be. No mortal has ever raised*

* "The names of all the divinities whom we shall mention are represented phonetically, figuratively, and symbolically. We shall select only now and then from these representations."

† "*Chnouphis*, in the old Egyptian language, signifies *good*."

the veil which conceals me; and the fruit I have produced is the sun.' Jablonski establishes the fact, that the priests of Sais regarded Neith, as the priests of Memphis and of Thebes regarded Ammon Chnouphis, viz., as the *mens æterna ac opifex (Pantheon Egyptiacum*, lib. i. cap. 3). To this spirit was attributed the origin and manner of all existences, and to its decree and ordination every thing was referred, as to its cause. To this spirit too, the reader will recollect, was attributed an existence from and through all eternity, and a dwelling in the upper world far above and beyond the vision of men. The correspondence, then, between the two first phrases of the inscription at Sais, and the following passages employed in Scripture to designate the Deity, will appear very striking. *Which was, and is, and is to come* (Rev. iv. 8.). *The same yesterday, to-day, and for ever* (Heb. xiii. 8.) *I am that I am* (Exodus iii. 14.) *No man hath seen God at any time* (John i. 18.). *Who only hath immortality, dwelling in the light which no man can approach unto; whom no man hath seen or can see* (1 Tim. vi. 16). While upon this subject, we cannot but notice another description of the Supreme Being, analogous to that in Scripture. It occurs in the sacred books of the Hindoos, called the *Vedas*. Speaking of Vishnoo, the supreme god of the Hindoo mythology, it is said, '*All which has been, all which is, and all which will be, are in Vishnoo. He illuminates every thing, as the sun illuminates the world.*' (See *Recherches du Paganisme*, by De Sacy, vol. ii. *De Triplici Theologiâ Mysteriisque Commentatio*, p. 45.) Amid the gross and materialising views which pervaded many of the religious systems of the ancient world, it is pleasing to find some at least recognising the *spiritual existence of one Infinite Mind*. This seems very evidently to be the case with the system of the Hindoos; and among the Egyptians, though material gods and goddesses emerged from the sun and moon, the zodiac, and whole planetary system, to throng their mythology; though they conjectured that various divine personages emanated from Ammon himself, and this in the gross way of heathenish conceit; still they had some pure conceptions of a Supreme Deity. Such facts go far to prove something like a religious instinct in man, a nature which, however degraded he may be, implants the conviction of an exalted Power, and leads him to express his views of it by some dim and imperfect emblems. But we must proceed to notice other gods of the Egyptian mythology. The god *Phtha*, whose image Champollion has found always sculptured near the image of Ammon Chnouphis, on the bass-reliefs of Thebes, Ipsamboul, Edfou, Ombos, and Philæ, belonged to the family of Ammon, and was the son of Ammon Chnouphis. He is symbolically represented by a human form with the head of a hawk, by a peculiar cap or head-dress, and sometimes simply by a hawk holding an emblematical head-dress. His functions are thus described by Spineto (p. 129):—'He was the god to whom the priests attributed the organisation of the world, and consequently the invention of philosophy, the science which exhibits the laws and conditions of the very nature he had organised. He was considered as the founder of the dynasties of Egypt (in the fabulous age of Egyptian history), and the Pharaohs consecrated to him the royal city of Memphis, the second capital of the empire, where he had a magnificent temple superbly embellished, in which the grand ceremony of the inauguration or installation of the Egyptian kings was splendidly performed; and he was also considered as their protector, by the titles they had assumed of *Beloved of Phtha, Approved of Phtha*, and the like. Under one form, in which Phtha is called *Socari*, he is connected with the Egyptian *Amenti*. Phtha was assimilated by the Greeks to their Ἡφαιστος (Vulcan). Spineto thinks he was 'a very superior being to this blacksmith.' But there is an evident resemblance in their functions. Diodorus Siculus states, that the Egyptian priests regarded Phtha as the inventor of fire; and, as has been already remarked, he was the great artist of the earth. So Vulcan was regarded by the Greeks as the god who presided over fire, and as a great artist, whose forges were situated in various parts of the earth. Champollion remarks, 'that many passages in ancient authors attest the fact that one of the principal gods in Egypt, who was likened by the Greeks to their Ἡφαιστος, bore the name of *Phtha* in the language of Egypt.' Among other evidence of this fact, he cites the Rosetta inscription, and an old Theban Coptic homily, composed by S. Schenouti, which designate Ἡφαιστος and Phtha as the same god (*Précis*, p. 149—151). The divinities whom we have now described, were among the principal of those who inhabited the upper world, and who are ranked in the first class of Egyptian gods. But the Egyptians supposed the earth itself to be subject more directly to the power of the gods who were *visible*. The most important among these was the sun, which luminary, on account of its being the source of so many blessings, has, among almost all heathen nations, been worshipped as a god. Its influence in promoting the alternation of day and night, and the change of seasons, in reanimating nature, and in maturing the products of the earth; its appearance in the heavens, being the most brilliant luminary upon which the eye of man is fastened;—all these circumstances led the Egyptians to consider the sun as the deity who presided over the *physical* universe, and as 'the eye of the world.' One manner in which he was hieroglyphically represented was by a globe, which was usually of a reddish hue, and stood upon the head of a hawk. He was called, in the Egyptian language, *Re* or *Ri*, and derived his origin from Phtha, whose son he is often called, and whom he succeeded, according to the priests, in the government of Egypt. 'In consequence of this belief,' says Spineto, 'all the Egyptian kings, from the earliest Pharaohs to the last of the Roman emperors, adopted, in the legends consecrated to their honour, the pompous titles of *offspring of the sun, son of the sun, king like the sun of all inferior and superior regions*, and the like. This last title is fully explained in a letter from Champollion, from which we learn that the double destiny of the soul was symbolised by means of the march of the sun in the upper and lower hemispheres. Splendid worship was performed in honour of the sun in Egypt, and Heliopolis (ἡλιου πολις, i. e., *city of the sun*) was particularly consecrated to him. We might exhibit here some analogies between the *Re* of the Egyptians and the *Phœbus* or *Apollo* of the Greeks and Latins. But we must leave these, and also the consideration of other planetary divinities, in order to describe a few more important personages in the Egyptian Pantheon. Inscriptions are frequently found which contain the names of divinities, written both in Egyptian and in Greek. In this form occurs the name of a goddess called *Sate*, who was assimilated by the Greeks to their Hρα (the *Juno* of the Latins). She is a goddess of the first rank, and she is represented as the daughter of the sun, and as partaking with her father in employments that have respect to the physical universe. 'She seems to have been,' says Spineto, 'the protectress of all the Egyptian monarchs, and especially of the Pharaohs of the eighteenth dynasty—a dynasty which reckons among its members the greatest kings that ever reigned over Egypt; a Mœris, an Amenophis II., an Ousirei, a Rameses

Meiamoun, the grandfather of Ramses Sethosis, so well known by the ancients under the name of *Sesostris.*' The image of this goddess occurs in many temples of Upper Egypt and of Nubia; in the temple of Elephantina, she is exhibited as receiving offerings from Amenophis II., and presenting this prince to Ammon Chnouphis, who sits upon a throne. The frequent occurrence of her image near to that of Ammon, to whom she is in this way addressing some service, proves that she was an important personage in his family. Her emblems and titles are very splendid. The following is an example of the latter: 'Sate, the living goddess, the daughter of the sun, the queen of the heavens and of the earth, the ruler of the inferior region [which here designates Lower Egypt, according to Spineto], the protectress of her son, the lord of the world, the king of the three regions [Upper, Middle, and Lower Egypt, according to the same], son of the sun, Phtamen Ousirei.' Champollion describes her characteristic emblem as the upper part of a head-dress, called *Pshent*, adorned with two long horns. This is placed upon the head of an image, which represents a woman with the sign of divine life in her hands. Sme is another goddess of the first rank among Egyptian divinities, whose employment seems chiefly to have been in the Egyptian *Amenti*. Spineto thus describes her: 'She was called by the Greeks Αληθια, and answers to Themis, the goddess of justice and truth. These attributes evidently show her to have been another representation of the infinite Power, who continued to influence and to act upon the destinies of men, even after death, in a future life; for we find this goddess almost invariably represented on the monuments exhibiting the ceremony of funerals, perpetually leading the soul to the balance, where the deeds and actions of its life were to be weighed, previous to its being introduced to Osiris. She is figuratively represented by the image of a woman, holding the sign of divine life, and having her head decorated with a feather, which is the peculiar distinction of all her images. Symbolically, she was exhibited by the great serpent, who was the emblem of immortality and of wisdom.' (*Lect.* iv.) Such are some of the principal gods and goddesses in the Egyptian Pantheon. The most important of the second rank are the goddess Isis, and her brother and husband Osiris, to whom, following the selection of Spineto, we shall devote a few details. Osiris was the chief god of the Egyptian *Amenti*, answering to the *Pluto* of the Greeks and Latins. By some, Osiris is said to have been the *Sol inferus*, that is, the sun when it passed into the lower hemisphere, and through the autumnal and wintry signs of the zodiac, in opposition to the *Sol superus*, or sun when it passed through the upper hemisphere, and through the summer signs of the zodiac. Jablonski attempts to establish this supposition, though he errs in confounding the name of Serapis with Osiris (*Pantheon Egypt.*, lib. ii. cap. 5). But whether this was the case, or whether Osiris is to be regarded as an entirely distinct divinity, we have not now the means of determining; it is sufficient for our purpose to know where his dominion was exercised. This was over the souls of men after their decease—a fact which is revealed by almost every legend and painting relating to the dead. Spineto furnishes a description of a representation of this kind in his fifth lecture (pp. 150, 156). Osiris was phonetically exhibited, according to Spineto (*Lect.* iv. p. 141), 'by a sceptre, with the head of a species of wolf, which denotes the vowel O; the crooked line, S; the oval, an R; the arm, an E, or an I, which gives *Osre*, the abbreviation of *Osire* or *Osiri*.' Isis, according to Jablonski (*Pantheon Egypt.*, lib. iii, cap. 1 and 2), represented the moon; and, as the Egyptians adored a *Sol superus* and *Sol inferus*, so they worshipped a *Luna supera* and *infera*, or *Isis cœlestis* and *terrestris*. Besides officiating in the Egyptian Amenti, she was recognised in a variety of capacities; among others, as the inventress of agriculture, the divinity who contained within herself the seeds of productive nature (*Plutarch de Iside*, p. 372), and as the inventress of sails and of navigation. (The elevation of a ship formed one feature in her mysteries; *Spineto*, p. 140.) She seems to have been the prototype of a large number of Grecian divinities; among the rest, of Proserpine and Ceres; particularly of the latter, whose adventures and mysteries her own strongly resemble. (See *Recherches du Paganisme*, by De Sacy, vol. i, p. 150, seq.) She was symbolically represented by a throne, a half circle, and an egg, which last sign denoted her gender as feminine; figuratively, by a disk and a pair of horns. The *Amenti* of the Egyptians, corresponding to the *Hades* of the Greeks, and to the *Tartarus* of the Latins, was the *place of the dead*. It was governed by Osiris as chief, and by many subordinate divinities. The following quotations from Spineto (*Lect.* iv.) will show where the souls of men were distributed after death. 'The Egyptians divided the whole world into three sones. The first was the earth, or the sone of trial; the second was the sone of the air, perpetually agitated by winds and storms, and it was considered as the sone of temporal punishment; and the third was the sone of rest and tranquillity, which was above the other two. Again, they subdivided the first sone, or the earth, into four regions or departments: the second, or the sone of the air, was divided into two only; the first of these was subdivided into four regions, and the second into eight, making twelve altogether; these, being added to the four regions of the first sone, made sixteen; and, lastly, the third sone of the tranquil atmosphere contained sixteen more regions; so that the sum total of the regions in which the souls of the dead were to be distributed, was in fact thirty-two.' There is an evident variation between the divisions made by Spineto, and those made by Champollion in his letter. It would seem more probable that there were *twenty-four* principal sones, corresponding to the *twenty-four hours* of the day—twelve for the upper hemisphere, through which the sun passed during the twelve hours of light, and twelve for the lower hemisphere, through which the sun passed during the twelve hours of darkness. But the subordinate sones may have been more or less numerous (Champollion makes seventy-five sones in the lower world); and hence arises the variation between Champollion and Spineto. This circumstance, however, would not affect the division of the world into the three general portions, which Spineto announces; and, as the minor divisions are comparatively unimportant, we shall continue to quote from this author. 'The god *Pooh* was supposed to be a perpetual director—a sort of king of the souls, which, after having parted from the body, were thrown into the second sone, to be whirled about by the winds through the regions of the air, till they were called upon either to return to the first sone, to animate a new body, and to undergo fresh trials in expiation of their former sins, or to be removed into the third, where the air was perpetually pure and tranquil. It was over these two sones, or divisions of the world, situated between the earth and the moon, that the god *Pooh* exercised the full extent of his power. He had for his counsel the god *Thoth*, who presided over that portion of the second or tempestuous sone, which was divided into eight regions, and was only a temporary dwelling of the dead. This was, in fact, nothing else but the personification of the grand

principle of the immortality of the soul, and the necessity of leading a virtuous life; since every man was called upon to give a strict account of his past conduct, and, according to the sentence which Osiris pronounced, was doomed to happiness or misery; for, generally speaking, it seems that the Egyptians had assigned to their principal gods and goddesses, most closely connected with their Demiurgos, two different characters; the one presiding over, or assisting in, the creation of the universe; the other performing some duties, or exercising some act of authority in the *Amenti*, as was the case with the god Phtha, the goddess *Sme*, and others.' Spineto, after describing the manner of embalming the dead, as practised at Memphis, gives a brief account of a cemetery near to that city, 'which was the largest and most frequented of any in Egypt;' and also narrates the principal ceremonies performed on occasion of a burial. It shows from whence an important part of the Greek mythology was derived. (See our articles *Cemetery*, and *Cerberus*.) Representations exhibiting the punishment in the *Amenti*, of souls whose bodies were denied burial in this world, Spineto thinks must have been common in ancient times, but only a few have yet been discovered. Among these, says Spineto, 'is a monument in which the urn, containing the soul, or actions of the deceased, could not balance the weight of the image of Sme. In consequence of this deficiency, on a flight of stairs which formed the communication between the Amenti and the world, the deceased was represented under the form of a dog, with his tail between his legs, running away from the god Anubis, who was pursuing and driving him back again into the world. This representation confirms the opinion, that the Egyptians admitted the doctrine of the metempsychosis, and believed that the souls of men, for particular crimes, were condemned to return to life under the shape of some animal, to atone for their past sins.' In comparing the Egyptian *Amenti* with the *Hades* of the Greeks, and with the *Tartarus* of the Latins, Spineto briefly adverts to some points of assimilation, as follows: 'Upon the whole, the first seems to have been the prototype and the origin of the two last. Orpheus, who had been initiated into all the secrets of the mysteries of Egypt, carried into Greece these mysteries;* and the Greeks soon so altered the whole, as to render them no longer cognisable. Osiris became Pluto; Sme, Persephone [or rather Themis simply]; Oms, Cerberus; Thoth, Mercurius Psychopompos; Horus, Apis, and Anubis, the three infernal judges, Minos, Æacus, and Rhadamanthus. To conclude the whole, the symbolical heads of the different animals under which the forty-two judges (see *Cemetery*) were represented, being deprived of their primitive and symbolical meaning, were changed into real monsters, the Chimeras, the Harpies, and the Gorgons, and other such unnatural and horrible things, with which they peopled their fantastic hell; and thus the Amenti of the Egyptians, as indeed the greater part, if not the whole of their religion, became, in the hands of the Greeks and Romans, a compound of fables and absurdities.'"

HIEROMANCY (from the Greek *ἱερομαντεία*); that species of divination which predicted future events by the inspection of sacrifices.

HIERONYMITES, or JERONYMITES; hermits of St Jerome (Hieronymus); an order of religious, established in 1373, which wears a white habit with a black scapulary. In the Netherlands and in Spain, where it was devoted to a contemplative life, and possessed, among other convents, the splendid one of St Lawrence, in the Escurial, the sepulchre of the kings, this order became one of the most opulent and considerable. In Sicily, the West Indies, and Spanish America, this order (which has never been politically important) possesses convents.

HIERONYMUS, St. See *Jerome, St.*

HIEROPHANT was the first priest or director of the Eleusinian mysteries, and could be chosen only from among the descendants of Eumolpus, who was regarded as the founder of these mysteries, and the first hierophant. It was required that his exterior appearance and dress should correspond to the elevated office with which he was invested. It was necessary for him to be somewhat advanced in manhood, to be without visible defect, and to possess a remarkably pleasant voice. His forehead was adorned with a diadem, and his hair fell naturally down his neck and shoulders. His conduct was to be without blemish, and he was to possess the reputation of sanctity among the people. After his election, he was not allowed to marry; and, with a view of suppressing all sensual desires in their birth, he was obliged, like the other priests of Ceres, to wash himself in the juice of hemlock. Other accounts say, that these priests even drank the juice. It is also asserted that second marriage alone was interdicted to them, and that their wives could participate in certain occupations, such as adorning the statues, &c. It was the office of the hierophants, and of the descendants of Eumolpus generally, to preserve and interpret the unwritten laws, according to which the slanderers of the divinity and the defamers of her solemnities were punished. In the inferior mysteries, it was his office to introduce the novice into the Eleusinian temple, and to initiate those who had undergone the final probation into the last and great mysteries. In the mysteries themselves, he represented the Creator of the world: he explained to the novice the various phenomena that appeared to him, in a loud, penetrating voice. In the great mysteries, he was the sole expounder of the secrets of the interior of the sanctuary, namely, of secret instruction, which was actually the object of the whole institution. He was therefore termed *mystagogue* or *prophet*, and no one was permitted to pronounce his name in the presence of an uninitiated person. In public solemnities, it was his office to adorn the statues of the goddess, and even to carry them. See *Eleusis*.

HIGGINSON, Francis, an eminent preacher, was born in England, and received his degrees from Emanuel college, Cambridge. He then embraced the ecclesiastical profession, and settled at Lancaster, where he soon acquired a high reputation for pulpit eloquence. But he subsequently left the English church, and became a convert to the doctrines and manners of the Puritans. His eloquence and fervour, however, procured him the offer of some of the best livings in the country; but he refused them, on account of his opinions, and supported himself by keeping a school. When the company of Massachusetts Bay began to form a plantation there in 1628, they applied to Mr Higginson to go thither and prosecute his ecclesiastical labours. He promptly acceded to the request, and, in May, 1629, set sail from the Isle of Wight, and, on the 29th of the ensuing June, arrived in Salem harbour. It is related that when the ship was receding from the coast of England, he called up his children and the other passengers, and said to them, "We will not say, as the Separatists were wont to say at their leaving of England, Farewell, Babylon! farewell, Rome! but we will say, Farewell, dear England! farewell, the church of God in England, and all Chris

* "Any one who will take the trouble to compare the mysteries of Isis and Osiris with those of Ceres and Proserpine, with those of Venus and Adonis, and with those of Bacchus, will discover many striking resemblances.—Tr."

an friends there! We do not go to New England Separatists from the church of England, though e cannot but separate from the corruptions in it, but e go to practise the positive part of church refor-ation, and propagate the gospel in America." ere were but seven houses in Salem at the time of s arrival, but he immediately entered upon the rformance of his duties. These, however, he was t destined to discharge long, for he died in August, 30. He wrote an account of New England, titled A short and true Description of the Dis-veries and Commodities of the Country, which is inted in the first volume of the Collections of the storical Society of Massachusetts. One of his ns, also named Francis, who was an excellent nolar, kept a school for some time in New Eng-nd, but finally settled in the county of Westmore-nd, in his native country. He wrote a book against e society of Friends, called the Irreligion of North-n Quakers, said to be the first publication against at sect. He also published a treatise, *De quinque xrimis Luminibus; De Luce increatâ; De Luce eatâ; De Lumine Naturæ, Gratiæ et Gloriæ.*

HIGHLANDS of Scotland, one of the greater divi-ons of Scotland, applied to the mountainous part the country to the N. and N. W. in contradistinc-n to the Lowlands, which occupy the E. and S. E. trict. The Western Isles are also comprehended the Highland district. The Highlands are gener-y subdivided into two parts, the West Highlands, d the North Highlands; the former of which con-ns the shires of Argyll and Bute, and part of Perth d Dumbarton, with the islands belonging to them; d the latter comprehends the counties of Inverness, es, Sutherland, the districts of Athol, Rannoch, d the isles of Sky, Lewis, and others belonging to verness and Ross. The extent of this greater dis-ct, from Dumbarton to the borders of Caithness, is wards of 200 miles, and its breadth varies from to 100. The whole of the district is wild, gged, and mountainous in the highest degree: iny of the mountains are elevated to a great ight, while some of the vales at their base, for nths, never feel the rays of the sun. These vales are nerally occupied by lakes, or the precipitous rivers ich pour in torrents from them. The principal ers of the country have their rise amongst these lds, descending to the ocean with great rapidity: e Tay, the Spey, and the Forth, are formed from the nction of the numerous streams from the hills.

The openings or passes from the Lowlands into the ghlands were originally so wild and narrow that ey appeared almost impassable till they were ex-ded by art. Amongst these passes, the most ex-ordinary are, Balmaha, on Loch Lomond; Aberfoil d Leney, in the county of Monteith; the pass of enalmond over the Crieff; the entrance into the unty of Athol by Dunkeld, over mount Birnam; the ss of Killicrankie; and some beds of rivers. This tural boundary was one of the principal causes that e Highlanders remained a distinct race from the nabitants of the plains (the Lowlanders). In the ampian chain there are some hills of considerable ight, as Ben Lomond, Ben Lawers, Shehallien and hers. The Highlands appear in majestic grandeur m these mountains. Covered with clouds or en-loped in fogs, their summits are often scarcely rceptible, while their sterile appearance, and the ep, rocky defiles by which they are hollowed, bear e traces of violent convulsions of nature. Towards ese summits the soil is barren; lower down is a in covering of heath, where none but birds of prey, nite hares, and ptarmigans are met with. Farther wn still live red deer and grouse; and on fertile ains interspersed with rich heath, are numerous herds of sheep. At the foot of the mountains, beauti-ful valleys are formed, traversed by rivers from the hills, or enclosing splendid lakes, or covered with wood, or producing different kinds of corn. Many of these valleys have numerous inhabitants, whose principal property consists in cattle. The territory peopled by the Gaelic race consists of the counties of Sutherland, Caithness, Ross, Inverness, Cromarty, Nairn, Argyle, Bute, the Hebrides, and part of the counties of Moray, Banff, Stirling, Perth, Dumbarton, Aberdeen, and Angus. The boundary of the Highlands forms a line, beginning at the entrance to the Pentland Firth, extending round St Kilda, and encir-cling the whole group of the eastern and southern islands to Isla and round the Mull of Kintyre, up the Firth of Clyde, and comprehending the islands of Ar-ran and Bute, to the Leven at Dumbarton on the main-land of Scotland, along the Grampian hills to the county of Aberdeen, and ending at the north-east point of Caithness. The inhabitants are descendants of the Celts. They call their country *Gaeldach* (land of the Gaels) or *Albanich*. The names of *England* and *Scotland* are unknown in the Gaelic dialect. The English are called by them *Saxons* (Sassanach); the Lowlanders, *Gual* (strangers), and their country, *Gualdach*.

While, after the union of the Picts and Scots (see *Scotland*), in the ninth century, the Scotch Lowlands, by the intercourse with southern Britain, gradually became more and more civilised, the social relations of the Highlanders assumed a peculiar character, having for its basis the circumstances of the original Celtic inhabitants. The condition of the country, and the motives which led them to fix their residence there, determined the nature of their institutions. Unable to contend on equal terms with the force which urged them from below, and desiring to pre-serve their independence, they protected themselves in those mountain-castles, which have always been the sanctuary of liberty, and the refuge for those who would oppose their more powerful neighbours. In the absence of their kings, who had their seats in the Scotch Lowlands, and protected by the moun-tains, they did not always submit to the dominion of a distant sovereign, who was neither able to enforce obedience nor to afford protection. The division of the country of the Gaels into single valleys, glens, and islands, separated either by mountains or inlets of the sea, necessarily led to the formation of small tribes; and men of considerable property or distinguished talents, under whose command the others had fought, or under whose protection they had settled, became chiefs. As the inhabitants of these valleys had little intercourse with each other, on account of the natural condition of the country, each valley became the territory and property of a tribe, which had arms for defence, a sufficient number of artisans for their con-fined wants, pasture for their cattle, wood for build-ing, &c., moss and turf for burning, and a territory for hunting. These tribes were without inducements to change their habitation, to invite foreigners, or to pro-mote a general intercourse among the various settle-ments; so that each of them isolated itself. Thus the nation was split into single masses, connected, indeed, by the same language and customs, but living under different rulers. Thus was formed, in each tribe or clan, a patriarchal government, a kind of hereditary monarchy, founded rather on custom, and confirmed by general consent, than regulated by laws. The Highlander honoured, in his chief, the descendant of a distant ancestor, from whom the whole clan was believed to have sprung. The clan showed him a filial devotedness; and even the name *clan* is derived from the Gaelic word *klaan*, that is, *children*. The more the ties of real or supposed relationship contri-

buted to union and friendship in the clan, the easier were the members excited to violence by injuries from without their limits, as there was no general government to look to for protection. A necessary consequence of the isolation of each clan was, that each concluded marriages chiefly within itself; and thus a general relationship really grew up. Many of the members, therefore, had the same name with the chief, so that a feeling of kindred and mutual attachment existed. Towards all, the chief stood in the light of a superior, commander, and judge. He could call upon the young men to accompany him in the chase or to fight under his banner. The whole system of the clans rested essentially upon the power which custom gave the chief in virtue of primogeniture. The obligations of the members of the clan to the chief were indissoluble by any relation into which they might enter. The chief was generally, yet not always, proprietor of the whole territory of the clan, or of the greater part, yet not with absolute right of possession. A certain portion of the best part of the territory was allotted to him as his special property. The rest of the land was distributed, for longer or shorter periods, among that class of the clan which consisted of the farmers. These were the near relations of the chief, or the descendants of a distant and common chief. To these brothers, nephews, cousins, the chief gave land on condition that he might resume it at pleasure, or on lease for a short time, or (which was the general mode) as a kind of mortgage redeemable on the payment of a fixed sum. After two generations, these portions of land were generally resumed in order to be conferred on nearer relations, upon which the descendants of the former possessors returned to the class of the common members of the clan. This change of property was so common, that the ordinary class were confirmed by it in their belief of their original relationship with the chief, as, in each generation, some families joined them, whose ancestors had belonged to the kindred of the chief. Sometimes, however, the young relations received land in perpetual possession, or acquired property by inheritance, marriage, or other means. In such cases, they retained their original rank, and generally each stood at the head of a subdivision of a clan, which considered him as its immediate head, though they always remained dependent on the chief of the clan, and generally even tributary. The largest clans often had several of such subdivisions. The chieftains of the branches and their subjects had sometimes a particular name, called *bar sloine*, or genealogic surname, which originated from the baptismal name or surname of him who had established the clan. Where there existed no such subchiefs, the feoffees above described stood nearest to the chief. They were honoured as noble, and called themselves *Duinhe Wassal*. A feather upon the cap designated their rank. These again parcelled their portions into smaller farms, which they let to people of the common class for a rent. Generally these stood in the same dependence upon their immediate lord as the latter upon the general chief.

When the population in these narrow and sterile valleys increased, the means of support soon became scarce. The strict separation of the clans, and the hereditary enmities not unfrequently existing between them, prevented emigration to the neighbouring valleys, and, still more, to the lower country. The consequence of too great a population was indolence. The younger sons of the more distinguished part of the clan, who joined the common people reluctantly, showed a contempt for peaceful occupations, and collected the most courageous youths of the tribe, with whom they went on predatory expeditions (called creaghs) against the Lowlands and hostile clans. As the chief wealth of the country consisted in cattle, hostilities were generally commenced by driving away cattle. There existed, also, a class of bold adventurers, called *cearnachs*, employed on expeditions of uncommon peril, or by which uncommon honour was to be gained. In later times, however, their profession was considered less honourable, and consisted in gathering tribute from the lower country, or payment for protection against depredation, called *blackmail*. One means of support for the younger sons of the chiefs, was the military service in France and Spain; and, after the banishment of the house of Stuart, to which the Highlanders were faithful, it became still more common to follow foreign colours. Thus they always remained acquainted with war, and the fame of the deeds of their countrymen in foreign countries nourished their martial spirit at home. A warlike disposition and contempt of labour was found even among the lowest classes. The labour of the field was left mostly to old people and women, whilst the vigorous men spent their time in idleness, in hunting, or in active sports. Mechanics stood in higher esteem than mere farmers. Weaving was a labour for women, but the men only were tailors. The smith who made arms, or at least mended them, was particularly esteemed, and belonged to the household of a chief; yet most of the arms used were sent from the Lowlands. The chief generally lived surrounded by his dependants. His castle was the place where rewards were distributed, and the most envied distinctions were bestowed. The chief did not distinguish himself by the splendour of his dress or household, but merely by a more numerous household and more guests. What he received from his dependants was again consumed for their liberal entertainment. Every member of the clan was welcome in the castle, and was, according to his rank, treated with a civility and delicacy, of which elsewhere little is known. This treatment elevated the clan in their own esteem, and drew still tighter the ties between them and their chief, whose power, though mildly exercised, was, according to its nature, absolute. The laws which he administered were simple. Esteem of his authority, and gratitude for his protection, were natural consequences of his patriarchal government. Hence the unshaken fidelity of the clans, of which the Scottish history affords so many splendid instances, particularly in the civil wars of 1715 and 1745. Sometimes there was a deviation from this constitution of the clans; and even the right of inheritance, on which the whole institution was founded, was disregarded in particular cases. There are also examples of deposing unworthy chiefs; and, during the troubles after the revolution (1688), a chieftain was deserted by his whole clan, because he wished to lead it against the banners of the house of Stuart; and thus loyalty triumphed over the strong bond of vassalage.

In the earliest times, the Highland chiefs owed allegiance to the native princes, by whom the Scottish kings were acknowledged as sovereigns merely in name. Among these native princes were the powerful lords of the Isles, who flourished from very ancient times to the reign of James V. They ruled over all the Western Islands (the Hebrides), from Ilay north, and over the western part of the county of Inverness, and, as powerful allies, exerted an influence over the greater part of the Highlands. The earls of Athol, of Mar, of Lennox, and other powerful lords, governed the remainder. These islands first became dependent upon the Scottish crown in the commencement of the 15th century; nevertheless, the divisions which afterwards took place among the clans, did not contribute much to

strengthen the power of the kings of Scotland; and although the tribes could no more, as in earlier times, under one head, disturb the peace of the land, yet when a common cause united some of them, they broke from their mountain-holds and descended into the plain country During the disturbances which distracted Scotland after the death of James V., the independence of the Highland chiefs was still more confirmed. When, in the seventeenth century, the martial spirit declined in the Lowlands of Scotland, the Highlanders showed, for the first time, a decided superiority in the art of war, which contributed much to infuse into them a higher feeling of their own power, and to make them more obstinate in their adherence to their native customs. But not long after the first victories which they had obtained in the Lowlands, they were severely chastised by Cromwell in their own mountains. He placed strong garrisons in several places, commanded flying divisions of the army to pass through the mountains, search the most secret lurking places, and dismantle the castles of the chiefs, and at length compelled the clans to lay down their arms, and give security for their peaceful conduct. After the restoration of the house of Stuart, to which the fidelity of the Highlands had so much contributed, the yoke imposed by Cromwell was removed from them; the fortresses which had been built for their subjugation were destroyed or forsaken; and the laws against the predatory expeditions of the Highlanders were no longer enforced. Under these circumstances, the old constitution of the clans was again strengthened. During the reigns of William III. and queen Anne, the government being employed in wars upon the continent, thought it best to preserve quiet in the Highlands by the distribution of money.

The alarm occasioned by the insurrection in 1715, in favour of the house of Stuart, led to the adoption of various measures to break the power of the chiefs. By the clan act (so called), the property of the vassal who had taken arms in a rebellion was given to his feudal lord who had remained faithful; and where the case was reversed, the loyal vassal was allowed the entire property in lands which he had held of a rebellious chieftain. Another statute relieved the vassals from their duty to follow their feudal lord in the chase, and to fight in his private quarrels. The third measure was the disarming of the Highlanders; but this was so negligently performed, that most of the adherents of the house of Stuart were able to conceal their weapons, in order to employ them, upon a favourable opportunity, against the government. The most effectual of all the measures was the making of roads from the Highlands to the Lowlands, by which means, in the course of time, a gradual blending of the inhabitants of both parts of the country took place. But other circumstances occurred, which produced, in the sequel, a violent dissolution in the relations of the clans. The exasperation occasioned by the proceedings of government, made the people so much the more susceptible to the promises and encouragements which the house of banished princes did not spare. The chieftains made every effort to maintain their threatened power, and to destroy the effect of the innovations with which the government sought to weaken the bonds of the clans. A dangerous means, to which the government had recourse, favoured the designs of the Highlanders. About the year 1729, companies were formed among the Highlands, of which the sons of the chieftains, or the distinguished vassals, were appointed officers; but the chiefs themselves had the highest command. These companies, six in number, were usually called, from their dark-coloured tartans, the *Black Watch* (*Freicudar Dhu*). Their duty was, to execute the law for disarming; to terrify the discontented; to prevent meetings of the people, and conflicts between hostile clans; and, particularly, to check predatory excursions. With this view, they marched through the land, and had thus an opportunity to become acquainted with the boldest individuals; and it is certain that the chiefs knew how to employ this institution for their own purposes. So much, at least, is clear, that the Black Watch was a means of nourishing the warlike spirit which the previous measures of the government were intended to repress. The rebellion in 1745 was a consequence of the secret disaffection of the Highlanders, and of instigations from abroad. The event of the contest gave the government an opportunity to abolish the patriarchal constitution of the Highlanders (1747), to execute the law for disarming them, and even to prohibit their national dress, of Celtic origin, which distinguished them from all other people.

This beautiful dress, favourable for light and free motion, was peculiarly fitted for the warrior, the hunter, and the herdsman. The material of Highland clothing has remained the same for centuries—a woollen stuff, sometimes with a cotton woof, and always checkered with various colours. Each clan has usually its peculiar mixture of colours. The chief part of the dress is a short petticoat descending to the knee, and called the *kilt*. Horsemen and aged men sometimes wore likewise a kind of tight pantaloons, called *trews*. The waistcoat and kilt were embroidered, or adorned with lace. The plaid was two yards broad and four long. It was a piece of tartan, which surrounded the body in broad, elegantly arranged folds, fastened by a girdle; the lower part fell down, and the upper part was drawn round the left shoulder, and left the right arm free. If it were necessary for both arms to be free, it was fastened with a silver clasp upon the breast. In front hung a large pouch of goat skin or dog skin, resembling a lady's reticule. There was a dagger, besides a knife and fork, in a sheath hanging upon one side. The bonnet belongs to the Highland dress. Instead of the feathers, which were worn by people of rank, the lower classes wore bunches of heath, or a branch of the holly or oak. The shoe consisted of pieces of thick leather, which were fastened with stripes of leather over the foot. The strict prohibition of this dress (1747) was peculiarly galling to the Highlanders, and they were often ingenious enough to elude it. This prohibition was first formally removed in 1782. Since then, the old dress of the people has been gradually forsaken, and is now only found in some districts, mingled with the dress of the Lowlanders, and only common among the lower classes of the people.

The arms of the Highlander were, the sword upon the left side, and a short dagger upon the right, a musket, a pair of pistols, and a target. In the want of a musket, or if ammunition failed, a weapon was used, called a *Lochaber axe*, suited either for cutting or thrusting. Each clan formed, under the command of its chief, a regiment, whose companies consisted of separate families, each under the direction of its head.

Courage and love of freedom, attachment to country and domestic ties, hospitality and a social disposition, honesty in private intercourse, and inviolable fidelity to trust reposed in them, were the distinguishing characteristics of the Highlanders, and are so still, notwithstanding all the changes which their manners have undergone in later times. A knowledge of books was but little diffused, and only among those of high rank, who were educated partly in France. But the history of their native land, poetry, and music, were darling pursuits even among the

common people. Each chief had his bard, who sung the deeds of his race, and of the individual members of the clans. These singers were held in high esteem, and were, like the *senachies*, or the elders of the tribes, the preservers of old stories, which they retained in memories strengthened by continual exercise, in the absence of a written literature. The favourite musical instrument was the bagpipe, and its lively sounds in battle supported the animation of the contest. A warm imagination, affected in a lively manner by the sublimity and the perfect solitude of the landscapes of their country, was the source of many of their peculiar superstitions.

The Highlands form the only country in Europe that never has been disturbed by religious contests, nor suffered from religious persecution. The Presbyterian and Catholic are the prevailing forms of belief. The latter is chiefly limited to the county of Inverness, and some of the islands. Among the nobility there are also some adherents to the Episcopal church. Protestants and Catholics live together in a very friendly manner.

The political measures of 1747 gave the first impulse to the great change which took place, in the course of time, in the manners of the Highlanders, although it did not manifest itself decidedly till twenty years later. This change was seen in the whole character and condition of the Highlanders, and not merely in their manners and exterior, but even in the appearance of their country. Lands which were long under the plough became wild; whole valleys, once the dwelling-place of powerful clans, were made desolate; and families which, like Alpine plants, were rooted in their native soil, saw themselves compelled to seek support in manufacturing cities, or to emigrate to America.

The character of the Highlanders has lost much of its romantic and chivalrous tone. One of the most striking traits of the altered Highlander is his great indifference to the old relations of the clan, although, long after the abolition of clanship, the attachment of the people to their chief continued, and what the law denied, fidelity gave undiminished. The impatient desire of acquisition on the part of the landlords, also, caused many oppressions, which gradually loosened the bonds of love and fidelity. Still we find, indeed, some landholders who seem like remnants of former days, and have secured to themselves the attachment of their dependants. But many have been estranged from their country by a residence in London and Edinburgh; and, to meet the increased expenses occasioned by their style of living, they have been led to measures which have injured the poorer classes of the people; and the great increase of sheep-breeding, particularly, has taken from the people the means of support. Thousands have emigrated to America within thirty years, to whom the beloved home of their fathers offered nothing but the prospect of poverty.

See major-general David Stewart's *Sketches of the Character and Present State of the Highlanders* (3d edition, Edinburgh, 1825, 2 vols.); to which we may add, *Remarks on Col. Stewart's Sketches*, &c. (London, 1823); see, also, the work of doctor M'Culloch, entitled *The Highlands and Western Isles of Scotland* (London, 1824, 4 vols.). This work is written in an exaggerated style, and many of its statements have been proved by Dr Brown to be inaccurate. Still it contains much information regarding the Highlands. Logan's *Scottish Gael* (London, 1831, 2 vols. 8vo) and Brown's *Clans of Scotland* may also be consulted. The statistics, &c., of the Highlands, will come to be treated of at length, under the article *Scotland*.

HIGHLANDS OF THE HUDSON (called, also, *Highlands of New York*, *Fishkill Mountains*, and *Matteawan Mountains*); a range of mountains in New York, extending in a north-east and south-west direction across the Hudson, in the counties of Rockland, Orange, Westchester, Putnam, and Duchess. They are fifty-three miles above the city of New York, and occupy a space from sixteen to twenty miles in width. The Indian name was *Matteawan*, which signifies the *country of good fur*; and the same name is still properly applied to the whole range. Some of the highest peaks are Beacon Hill, Grand Sachem, Breakneck, Blue Hill, and Butter Hill. The heights of the summits above the level of the Hudson, vary from 1100 to 1685 feet.

HIGHMORE, Joseph, a portrait and historical painter, born in London, June 13, 1692. He early displayed a strong partiality for the fine arts, which was discouraged by his family, who placed him in a solicitor's office. The whole of his spare time was, however, devoted by him to the study of his favourite pursuit; and, immediately on the expiry of his clerkship, when only seventeen years of age, he abandoned the law, resolved to trust in future to his talents as a painter alone for his chance of fame and fortune. The year following, he married, and continued rising in reputation, till, on the revival of the order of the Bath, he was selected as the artist to be employed in painting the knights in full costume. The years 1732 and 1734 were spent by him in professional tours through the Netherlands and France, and, on his return, he applied himself with renewed exertions to the cultivation of an art which he exercised nearly half a century. He died in 1780. Among his best paintings are, the Hagar and Ishmael, in the foundling hospital; the Finding of Moses, &c. The illustrations to the original editions of the novels of Richardson, were also from his easel. As an author, he is known by the Critical Examination of Rubens's two Paintings in the Banqueting House, Whitehall (4to); Observations on Dodwell's Pamphlet against Christianity; the Practice of Perspective (1763); and two vols. of Moral and Religious Essays; with a translation of Brown, on the Immortality of the Soul.

HIGHNESS; a title of honour given to princes. The kings of England and Spain had formerly no other title, the first till the time of Henry VIII., the second till that of Charles V. The petty princes of Italy began to receive this title in 1630, and the duke of Orleans assumed the title *of royal highness* in 1631, to distinguish himself from the other princes of France. The prince of Condé took the title of *most serene highness*. At present, the children of crowned heads are generally styled *royal highness*. Those of the emperors of Austria and Russia are styled *imperial highness*. The grand dukes and the elector of Hesse Cassel are called *royal highness*. The French *altesse royale* corresponds to *royal highness*, but *altesse* is not the same as *highness*, it being used for *your grace*, and the German *Durchlaucht*.

HIGH PRIEST; the head of the Jewish priesthood. Moses conferred this dignity upon his brother, in whose family it descended without interruption. After the subjugation of the Jews by the Seleucidæ, the Ptolemies, and the Romans, it was often arbitrarily conferred by the foreign masters. In the time of Jesus, the office appears to have been held by several priests alternately. The importance of this officer is indicated by the splendour and costliness of his garment, which was among the most beautiful works of ancient art. The breastplate of the high priest is particularly celebrated. It was called *urim* and *thummim*, i. e., according to Luther, *light* and *right*. According to other commentators, it received its name from twelve precious stones,

which were set in gold, and on which the names of the twelve tribes were engraved. In this dress, the high priest appeared as the holiest and highest person of the nation, in the exercise of his official duties. To him belonged the regulation and superintendence of the worship of God, the declaration of the oracles of Jehovah to the people (he alone being permitted to consult them on important public occasions), and the preservation of the national sanctuary. Although the administration of justice was committed to particular judges, yet to him the last appeal was made in difficult cases, even in temporal affairs, and nothing important in war or peace could be undertaken without his assent. He was called, by way of distinction, the *priest who stands before the Lord*: he occupied the peculiar situation of a mediator between Jehovah and the nation. Once a year, he entered alone into the holy of holies (the innermost part of the tabernacle, afterwards of the temple), and, by his prayers and sacrifices on this occasion, the whole Jewish people believed that God was reconciled to them, and all their sins forgiven.

The following representations of the costume of Jewish priests, we take from Calmet. The first figure represents a high priest on the day of expiation; the second, a high priest in his robes; the third, a common priest; and the fourth, a Levite.

1.

2.

3.

4.

The articles *Hierarchy*, and *Popery*, will show how the Roman Catholic hierarchy made use of the constitution of the Jewish priesthood, as a foundation for their own authority, and transferred the prerogatives of the high priest to the papal chair.

HIGH TREASON. See *Treason*.

HIGH WATER; that state of the tides when they have flowed to the greatest height, in which state they remain nearly stationary for about fifteen or twenty minutes, when the water begins again to ebb. The time of high water is always nearly the same in the same place at the full of the moon, and, at all other times, the time of high water depends upon the age of the moon; the rule for finding which, the age of the moon being given, is as follows, viz.: add four-fifths of the days of the moon's age, as so many hours, to the time of high water at the full of the moon, and the sum is the time of high water, answering to that day nearly.

HIGHWAYS. See *Roads*.

HILARION; a Christian anchorite of the fourth century, born at Gaza, in 291. On his conversion from idolatry, he became the founder of monachism in Syria, after the example of St Anthony, whom he had seen in the deserts of Egypt. To this purpose, he dedicated the whole of his possessions, and, by the fame of his sanctity, induced many to join him. His death took place in the year 371, in the island of Cyprus.

HILARY, St.; a Christian prelate of the fourth century, one of the early fathers of the church, born at Poictiers, of which city, after his conversion from heathenism, he eventually became the bishop, in 355. His zeal in favour of the Athanasian doctrine respecting the Trinity, which he defended with much energy at Besières, drew on him the persecution of the Arian party, with Saturninus at its head, who prevailed on the emperor Constantius to exile him into Phrygia. After four years spent in banishment, he was permitted to return to his see, where he occupied himself in committing the arguments for his side of the question to writing, and continued to distinguish himself as an active diocesan till his death, in 367. His works were printed in folio, at Paris, in 1693. There was another of the same name, bishop of Arles, a Semipelagian in his opinions, who was the author of a life of St Honoratus, and some devotional tracts. He died in 449, and also enjoyed the honour of canonization.

HILDBURGHAUSEN, Saxe, one of the Saxon duchies, consisting of part of the former duchy of Coburg and the county of Henneburg, received its name from its former capital. It is situated on the southern declivity of the Thuringian forest, and is moderately fertile. It has estates on the old system. The nobility sends six deputies, the cities five, the peasants six, the clergy one. Compared with many other estates, they enjoy considerable privileges: they grant taxes, and have the inspection of the public revenue, the right to impeach officers, and to propose laws. By the treaty of division (1826), between Coburg, Hildburghausen and Meiningen, respecting the lands of the extinct lines of Saxe-Gotha and Altenburg, Hildburghausen received the principality of Altenburg, with the exception of Kamburg, and, in return, gave up the territory of Hildburghausen to Meiningen. Thus, the Hildburghausen line received, instead of 230 square miles, with 32,000 inhabitants, 530 square miles, with 108,000 inhabitants.

HILDBURGHAUSEN; the former capital of the duchy, on the Werra, a well built town, with 3500 inhabitants.

HILDEBRAND. See *Gregory VII.*

HILDESHEIM; formerly a German bishopric, now a principality of the kingdom of Hanover, on the north side of the Harts; very fertile. It consists, at present, of 657 square miles, with 131,500 inhabitants. Louis the Debonnaire founded the bishopric in 822. In 1802, Prussia took possession of it; in 1807, it was added to the kingdom of Westphalia; in 1814, it was annexed to Hanover.

HILDESHEIM, a city in Germany, formerly the see of the preceding bishopric, founded by Louis the Debonnaire, in 822, belongs at present, with the principality, to Hanover; is the seat of a Catholic bishop, and of a Lutheran consistory; has a Catholic seminary and gymnasium, and a Lutheran gymnasium, and 13,450 inhabitants, whose chief dealings are in grain, yarn, and linen. The cathedral contains an ancient Irmensaule. (q. v.) Lat. 52° 9′ 32″ N.; lon. 9° 55′ 46″ E.

HILL, Aaron, an English poet and miscellaneous writer, was born in London, in 1685. His father, originally a gentleman of good estate in Wiltshire, left him almost wholly unprovided for; which circumstance obliged him to quit Westminster school in the age of fourteen. His relation, lord Paget, being ambassador at Constantinople, he ventured, uninvited to join him, and a tutor was provided for him, under whose care he travelled through Palestine, Egypt, and various parts of the East. In 1703, he returned to England, and, after the death of lord Paget, he travelled for three years with Sir William Wentworth. In 1709, he published a History of the Ottoman Empire, partly from materials collected in Turkey; which publication, although it obtained much notice, the author himself subsequently regarded as a crude and juvenile performance. In 1710, he became manager of Drury-lane theatre, which post, however, he soon gave up. While in the management of Drury-lane, he wrote his first tragedy of Alfred and Rinaldo, an opera. In 1713, he obtained a patent for extracting sweet oil from beech mast, and a company was formed under his auspices; but, after a trial of three years, the scheme entirely failed, as did a subsequent plan for establishing a plantation in Georgia. He still continued to write for the theatres, and several of his pieces were brought on the stage. He also composed poems. In 1724, he commenced a periodical paper, called the Plain Dealer. In 1731, he rewrote his Elfrid, which he brought forward under the title of Athelwold. He afterwards translated in succession, the Zaire, Alzire, and Merope, of Voltaire, all of which show him in the light of a superior dramatic translator. He still, however, continued to interest himself with schemes of commercial improvement, until his health began to decline; and he died in February, 1750, in his sixty-fifth year, and was interred in Westminster Abbey. His versions of Zaire and Merope kept the stage until within a few years.

HILL, Sir John, a writer of the last century, distinguished for the versatility of his talents, and the multitude of his publications, was born about 1716, and was by trade an apothecary; but, having married a wife without a fortune, he was obliged to seek further resources for the increase of his income. The duke of Richmond and lord Petre employed him to manage their botanic gardens, and enabled him to travel through various parts of the kingdom, and collect scarce plants, of which he published an account by subscription. The scheme was not very profitable, and he therefore turned his attention to the stage; but, after two or three exhibitions at the Haymarket and Covent-garden, he returned to his shop. A translation of a Greek tract on gems, by Theophrastus, which he published in 1746, procured him both money and reputation as an author. He under-

ook a General Natural History (3 vols. folio); and, n conjunction with George Lewis Scott, he compiled Supplement to Chambers's Cyclopædia. In 1752, he ublished Essays on Natural History and Philosophy, ontaining curious microscopical observations. At he same period he started the British Magazine, and lso carried on a diurnal publication, called the Inpector. Notwithstanding his literary engagements, e was a constant attendant on every place of public musement, where he collected, by wholesale, a great ariety of private intrigue and personal scandal, hich he freely retailed to the public in his Inspec ors and Magazines. This discreditable occupation volved him in various quarrels. He invented seveal quack medicines, which, by means of the puffing dvertisements he wrote to recommend them, had for ome time a considerable sale, to his great pecuniary dvantage. His talents as a botanist, however, were y no means despicable. His greatest undertaking as a work entitled the Vegetable system (17 vols., olio). The title of knighthood he owed to the king f Sweden, who bestowed on him the order of the olar star, in return for the present of a copy of his otanical works. He died of the gout, a disease for hich he professed to have a specific, in November, 775. Besides the works already mentioned, he rote novels and plays, now deservedly forgotten. Having had a quarrel with Garrick, on account of he rejection of one of his dramas, that celebrated ctor characterised Hill, not unjustly, in the followng caustic epigram :—

"For physic and farces his rival there scarce is;
His farces are physic, his physic a farce is."

HILL, Robert; an industrious scholar, remarkable or his application to study, notwithstanding the obtacles arising from domestic penury, and a menial ccupation. He was born in 1699, at Miswell, near ring, in Hertfordshire, and was apprenticed to a ailor and staymaker. To those employments he occaionally joined that of a schoolmaster, by means of hich he with difficulty supported himself and his mily. In spite of these discouragements, he conived to make himself acquainted with the Latin, reek, and Hebrew languages; and he exhibited so uch literary talent as to attract the favourable otice of the reverend Joseph Spence, who, with a iew to benefit this pains-taking student, published a act, entitled a Parallel between a most celebrated lan of Florence (Magliabecchi) and one scarce ever eard of in England, (R. Hill), printed at Strawberryill, 1758, 8vo. By the assistance of his friendly iographer, Hill was relieved from his embarrassents, and enabled to remove to Buckingham, where e died in 1777. He was the author of an answer to ishop Clayton's Essay on Spirit; Criticisms on the ook of Job; and a tract, entitled the Character of Jew.

HILL, Rev. Rowland, son of Sir Rowland Hill, as born at Hawkstone, in 1744, and educated at ton and Cambridge. While yet at Eton, he emraced the views of the Methodists, and at Cambridge preached in the prison and in private houses, beore entering into holy orders; he also preached in e tabernacle and chapel of Whitfield in London—a ep which at once identified him with the Calvinistic lethodists. Family influence prevented him, howver, from formally joining that body, his avowed redilection for which, at the same time, rendered it tremely difficult for him to obtain ordination in the urch. At length he obtained a title to orders, and as ordained deacon. "Soon after," says a notice him, "this man of God determined upon disedience to earthly statutes and human canons, that might be obedient to a heavenly vision, and perrm a divine and immortal work. In imitation, therefore, of his illustrious patron and pattern, Whitfield, he soon began to lift up his voice in a wider sphere of labour—to proclaim the gospel to listening crowds in barns, meeting-houses, and, when they were too small or too distant, or not to be procured, in streets and fields, by the highways and hedges." In 1783, he laid the foundation of Surrey chapel, in the Blackfriar's road, London, in the duties of which he spent about the half of every subsequent year, employing the rest of the time in provincial excursions. He died on the 11th April, 1833. His sermons are represented to have been a singular mixture of solemn exhortations and violent denunciations: sometimes he introduced odd stories, puns, and jokes.

HIMA; a Sanscrit word, signifying *cold*, *winter*. Hence *Himalaya* mountains. (q. v.)

HIMALAYA, HIMALEH, or HIMALA MOUNTAINS, the *Imaus* of the ancients, called, by the old Indian bards, the *king of mountains*, is a snow-capped chain, rising, in gigantic masses, on the northern boundary of Bengal and Upper Hindoostan, and forming the rich valley of Cashmere (the land which produces the costly shawls). There are five passes over these mountains known to us, one of which leads to Thibet, and two to Chinese Tartary. These roads, the highest in the world, rise to an elevation of 14,496 feet. To these mountains, piled up before the elevated plateau of eastern Asia, the Hindoos have made pilgrimages for thousands of years, visiting the temples and altars of their gods, where the Ganges, the holiest of their rivers, rolls out from among the precipices and snows, and where secret horrors surround the throne of Mohadeo. No European had ventured to traverse this wilderness, for fear of the barbarous Ghorkas, before the enterprise was undertaken by two officers of the British army, who served in the campaigns of 1809 and 1815 against Nepaul,—Kirkpatrick, whose Description of Nepaul (1811) made us acquainted with the eastern, and Fraser, who has given an account of the western part of these Indian Alps; but, in 1819, Francis Hamilton gave a complete picture of this country. Fraser published his journal in 1820—Journal of a Tour through a Part of the Snowy Range of the Himala Mountains, and to the Sources of the Rivers Jumna and Ganges (with twenty engravings). Colebrooke and captain Webb made the first barometrical and trigonometrical measurements of the Himala mountains, but with imperfect instruments. According to their account, the height of the White mountain, or *Dhawala-Giri*, the Mont Blanc of the Indian Alps, at whose foot the river Ghandaki rises (29° 30′ north lat., 83° 45′ east lon.), is 26,872 feet, or, according to Blake, who corrected their measurements, 28,015. In the chain of the Andes, Chimborazo is 21,440 feet high; in the Alps, the most elevated summit, Mont Blanc, is 15,766 feet high. The lowest line of perpetual snow, on the north side of the Himala mountains, is 17,000 feet; on Chimborazo, 15,746; on the Alps, 8,300 feet. The highest point of the Himalaya which captain Gerard reached—the Chipea-Pic—on the borders of Chinese Tartary, was 19,411 English feet; on Chimborazo, Humboldt reached a height of 19,374 English feet. Webb also determined the height of twenty-seven other summits of the Himalaya, the greatest part of which he found to be above 20,000 feet, and the highest to be 25,769 feet above the level of the sea. Captain Hodgson and lieutenant Herbert took trigonometrical measurements of the whole central chain of the Himala mountains. Among thirty-eight summits, the highest Jawahir was 25,589, and the lowest was 16,043 feet high; and more than twenty peaks were higher than Chimborazo. They lie between 30° 80′ and 28° 49′ north lat., and 78° 51′ and 80° 54′ east lon.,

from Greenwich, at the sources of the Yamuna and the Ganges, which is here called *Bhagirathi*, before it unites with the Yamuna, the Jahnavi and the Alakananda in the plain. In the summer of 1815, Fraser ascended higher than Webb had done; he was the first European who reached Gangavatari (Gangautri), a small temple, sacred to Bhagirathi (10,300 feet above the level of the sea), the point to which the Hindoo pilgrimages are directed. After him, captain Hodgson, in the summer of 1821, ascended to a height of 12,914 feet, to Vanara Pugha, where the river Jumna, or Yamuna, bursts out of a bed of ice and snow 300 feet in depth, in a defile of the Jumnotri, which rises to the height of 21,155 feet. Between the highest peaks of this mountain, the overflowing of the streams forms a sacred lake, where the goddess Yamuna has her secret residence, which no pilgrim dares to approach. The Bhagirathi also rises here, among the glaciers. The Jahnavi, the third principal branch of the Ganges, has its source not far from hence, but at the northern side of the snowy mountain in Thibet. These streams rush along in narrow beds, worn deep in the solid granite, through dreadful chasms and precipices. Steep walls ascend perpendicularly from a sandy plain to the height of 3000 feet. A small ridge lies in front, of 600—700 feet in height, formed of sandstone. Then comes a chain from 1500 to 5000 feet in height, consisting of quarts; behind this is limestone, 7000 feet high. Next succeeds the central mountain, separated from the preceding by the valley of a river. The principal masses are gneiss, mica, and clay-slate. The streams carry down blocks of granite. There is no trace of glaciers. In the wilderness of ragged rocks, hot springs arise, overshadowed by cedars and firs. This dreadful solitude is the home of the primitive Indian mythological world, but the land has been made entirely desolate by the tyranny of the Ghorka (who, not long ago, governed Nepaul); and the misery of the inhabitants makes a striking contrast with the happiness of the divine life which the Indian poets represented as existing in this place. The principal difference between the European and Asiatic Alpine world is in the richness and variety of trees and plants which the latter displays, whose splendour and beauty, even on the border of perpetual snow, astonish the traveller. The barley, which comes to perfection on the mountains, at the height of 14,000 feet, is so extremely productive, that a person at Vienna, 1822, raised from a single barley-corn 15 perfect ears, 334 corns. See Alex. von Humboldt's *Sur l'Elévation des Montagnes de l'Inde*, and A. W. von Schlegel's Indian Library, i., 4.

HIMMEL, Frederic Henry, a popular German composer in the lighter kind of music, and a celebrated pianist, born, 1765, in Brandenburg, studied theology, and having played in the presence of the king, while in Potsdam, for the purpose of obtaining a clerical appointment, was made by him his chapel-master, and sent to travel. Himmel died, 1814, in Berlin. He thought too highly of his own powers, and liked a gay life, so that he did not study enough, as is perceptible in his greater compositions. His *Fanchon* is his best opera. Many of his songs are still sung in Germany.

HINCKELMANN, Abraham, born, 1652, in Saxony, was, for a long time, a clergyman in Hamburg. He was a learned Orientalist, and his edition of the Koran (Hamburg, 1694, 4to), is the first that was printed in Arabic. He died in 1695. He was an amiable man, of a sensitive spirit, and his death is supposed to have been hastened by a libellous pamphlet written against him.

HINDENBURG, Charles Ferderic; one of the most learned men of his age, celebrated for his discovery of the combinatory analysis. He was born at Dresden, 1739, and studied medicine, together with intellectual philosophy, natural philosophy, mathematics, and belles-lettres. In 1781, he was appointed extraordinary professor of philosophy at Leipsic; in 1786, he was made ordinary professor of natural philosophy at the same university. Many foreign academies and learned societies elected him a member. Died 1808. His works are enumerated in Meusel's *Gelehrtes Deutschland*.

HINDOOS, or GENTOOS; the primitive inhabitants of the East Indies; one of the most ancient nations; distinguished for their humanity, gentleness, industry, and polished by letters and the arts, at a time when most of their Asiatic neighbours were yet only in the first stages of civilisation, when the Greeks lay in obscurity, and the people of Europe in general were destitute both of the useful and the fine arts. They form a numerous people, have preserved their national character for thousands of years, even under the dominion of foreigners, and have retained, to the present day, their language, their written characters, their government, religion, manners, customs, and habits of life. They are, in general, of a brownish-yellow complexion, but the higher and richer classes are almost as white as Europeans. They are somewhat above the middle height, well proportioned, and, in particular, very flexible and dexterous. They are remarkable for their small hands. Temperance, frugality, hospitality, and obliging manners, are the favourable traits in their character. They are reproached with indolence and avarice. They possess great natural talents, but are, at present, deprived of opportunities for their development. In earlier times, before they were oppressed by a foreign yoke, they had reached a higher degree of civilisation, and their country has been considered as the cradle of all the arts and sciences. They practise agriculture, breeding of cattle, fishing, hunting, and mining. They cultivate forests, and are largely engaged in manufactures, commerce, and navigation. They manufacture cloths of a great variety and value, particularly of cotton and silk; among which are the finest muslins, fine shawls, mats, cordovan leather, &c., and are inimitable in dyeing. In the arts of music and painting, they are backward, but in dancing, statuary, and architecture, they are more advanced. They are acquainted with arithmetic, astronomy, and chronology, and are very fond of poetry and singing. The most extraordinary custom of the Hindoos is the burning of widows at the funeral of their husbands—a practice which has prevailed from times immemorial. (See *Suttees*.) This burning of the widows exists chiefly in the countries governed by the native princes.

The division of the people into several entirely distinct orders, or classes, which has existed from the remotest times, forms the castes. (See *Caste*.) There are four castes, which, to the great disadvantage of cultivation, are essentially and perpetually separate from each other, so that no transition from one to another is possible; no connexion between them by marriage, or otherwise, is permitted, and no individual of one class can assume the habits or engage in the occupations of another. The distinction is complete, in every sense, hereditary and personal; all the privileges or disabilities are inherited; no one is permitted to become what he is destined to be by nature, but he is obliged to become what his birth permits, or to remain what it condemns him to be. The slightest transgression of these laws is punished with loss of caste, and sometimes, in particular cases, with death. Even the difference of food is precisely marked out. The three higher castes are prohibited

ntirely the use of flesh; the fourth is allowed to eat ll kinds, except beef; but only the lowest classes of e fifth caste are allowed every kind of food, with- t restriction. Thus the lower the rank of a Hin- oo, the less he is restricted in his food and drink; t, on the other hand, the other burdensome restric- ons increase with the inferiority of rank.

The first and noblest caste is called *Brahmana*, d is the class of the Bramines, or Brahmanes, who e priests, scholars, teachers in schools and acade- ies, lawyers, and state officers. (See *Bramins*.) he second noble order is called *Cshatriyas*, or *Chet- ree*, and is composed of the Cshatriyas, or Raja- tras, the kings and warriors. They preserve the me *Raj-puts*, *Raja-putras*, by way of distinction, their old hereditary dominions in Hindostan. The ird noble caste is called *Bise*, or *Vaityas*; it is mposed of husbandmen and merchants. The mer- nants are called *Banians*, or *Wanniens*. The fourth ble caste is that of the *Soodras*, or *Shuder*, and mprehends the artisans and labourers. Besides ese four castes, with their subdivisions, there are merous mixed castes, or spurious classes, called *rrun Shunker*, which have sprung from the un- thorised unions of individuals of different castes. hese mixed races form a transition to the degraded tcasts, the *Parias*, (q. v.) *Chaclys* and *Peleya*, that contemptible, vile, unclean men. These consist those unhappy wretches who are obliged to do hatever no one else can do without pollution. hey are not only considered unclean themselves, t they render unclean every thing they touch. hey are deprived of all civil privileges, and stigma- ed by particular laws, regulating their mode of fe, their houses, and their furniture; they are not lowed to visit the pagodas, or temples, of the other stes, but have their own pagodas and religious ercises; they are not suffered to enter the houses the other castes (if it is done incautiously, or from cessity, such a place is purified by religious cere- onies); they must not appear in public markets, e confined to the use of particular wells, which ey are obliged to surround with bones of animals, warn others against using them; they dwell in serable hovels, distant from cities and villages, d are under no restrictions in regard to food. To e Hindoos belong the Seiks, Jats, Rajapoots, Mah- ttas, the Singalese, &c., of whom some have gone er to the Mohammedan religion; others, like the iks, have a religion of their own. (See *Bengal*, *indoostan*, *India*, *Indian Literature*, *Indian My- ology and Religion*, and *Indian Languages*.) The bé Dubois, who lived in the East Indies for thirty ars, has described the Hindoos, in a faithful, com- ete, and lively manner, in his work *Mœurs, Institu- ns et Cérémonies des Peuples d'Inde* (Paris, 1825, vols.)

HINDOOSTAN, or HINDOSTAN, or INDIA THIS SIDE E GANGES; an extensive region in the south of sia, between lat. 7° 56′ and 36° N., and lon. 67° d 92° 50′ E. It is bounded on the north by the imalaya mountains, on the east by the Birman pire and the bay of Bengal, on the south and uth-west by the Indian ocean, and on the west by eloochistan and Afghanistan. Its greatest length, m north to south, is about 1800 miles; its greatest eadth, 1500 miles. Its superficial area is estimated Mr Hamilton at 1,280,000 square miles. Some riters divide it into four great divisions, Northern indoostan, Hindoostan Proper, the Deccan, and the untry south of the Krishna; others comprise the o last under the Deccan, and call the two first *indoostan*. The mountains are the Himalaya in e north, and the Ghauts in the Deccan. The latter e divided into two ridges, the Eastern and Western. The Western Ghauts, the longest ridge, extend from cape Comorin to the Taptee or Surat river, including about thirteen degrees of latitude, with a single opening of sixteen miles, which admits the Paniany. Their distance from the coast is usually about forty miles—seldom more than seventy; their height computed from 3000 to 4000 feet. The Eastern Ghauts extend from the north of the Cauvery, lat. 11° 20′ N., to the banks of the Krishna, lat. 16° N.—The word *ghaut* signifies a pass through the mountains, and the high land is called *balaghaut* (that is, above the passes), and the low land *payeen-ghaut* (that is, below the passes). The country between the ridges is generally table land, and some of it very fertile. These mountains are generally composed of granite, and on the western side are extensive forests of teak timber. The principal rivers are the Indus, the Ganges, and the Burrampooter. Beside these are the Nerbudda, the Godavery, the Krishna, and other considerable streams. In a country of such extent and diversity of surface, the climate must of course be very various. In the north it is mild; in Sind and the neighbouring provinces, and on the coasts, the heat is excessive. The prevailing winds are the monsoons. The soil of the country is, in general, remarkably fertile, and the vegetation is extremely rapid. There are two crops a year, one in September and October, and the other in March and April. Among the vegetable productions may be mentioned corn, rice, maize, sugar-cane, betel, ginger, cocoa, coffee, mulberries, cotton, indigo, saffron, the different fruit trees of Europe, palms, bananas, teak, benzoin, camphor, bamboo, &c. The mineral kingdom is also extremely rich. Gold, silver, copper, iron, and other metals, porcelain earth, porphyry, saltpetre, borax, diamonds, &c., are among its productions. Among the animals are found the gibbon, the ourang-outang, and a great variety of monkeys, bears, tigers, buffaloes, gazelles, wild boars, elephants, rhinoceroses, jackals, &c. The immense serpents sometimes reach the size of twenty feet. Among the birds are pelicans, cassowaries, parrots, swans, &c.

The mass of the Hindoo and Mohammedan population is at about the same degree of civilisation, but there are some tribes which are in a state of barbarism. Besides the Hindoos the inhabitants are Afghans, dispersed about the country under a feudal government; Parsees or Guebres, (infidels), who are found principally on the western coast, and speak a Persian dialect; Arabians, also on the western coast, descendants of merchants formerly established in Hindoostan, who differ from the other inhabitants in language, complexion, features, and manners; Moguls or Monguls, who established themselves in the eighth century, and founded the Mogul empire in the sixteenth century; Belootches in the north-west. Among so many nations, there is a great variety of religious systems, but the principal religion is Bramanism (see *Indian Mythology*), much modified in some parts of the country (see *Seiks*); that of the Nepalese is Buddhism (see *Buddha*); that of the Afghans, Belootches, Arabs, and some Hindoo natives, is Islamism. The number of the inhabitants is very uncertain. Hamilton estimated that of the continental part at 132,000,000; others have carried the estimate to 180,000,000, and some have reckoned it at 110,000,000. The Sanscrit (q. v.), the original language of the country, is so ancient that neither history nor tradition makes mention of it as a spoken language. The oldest languages derived from it are the Prucrit, the Bali, and the Zend, which are the sacred languages of different sects. The modern dialects have nine-tenths of the words in common, but, except the Hindoostanee, which is spoken every where, and the Gujerattee, which is the general lan-

guage of the markets, they are all local. (See *Indian Languages.*) The privileged castes alone are permitted to cultivate the sciences. The lower castes, however, are allowed to study rhetoric, moral philosophy, and poetry, but literature and science are no longer encouraged as formerly. The English language is becoming more general, and the dialects of Hindoostan seem destined to become dead languages. (See *Indian Literature.*) The English government has, indeed, acquired such a preponderance, that 123,000,000 of the inhabitants of Hindoostan are dependent on it, either as subjects, tributaries, or allies. The nizam of Hyderabad, the rajahs of Mysore and Travancore, the Mahratta prince Holcar, the Mahratta rajah of Nagpour, the rajah Guicowar, the nabob of Oude, and some others, are bound to pay a tribute, furnish aid in war, and are forbidden to admit European officers into their armies, or to receive foreign ambassadors. The Mahratta prince Sindia, the rajah of Nepaul, and the Seiks, are allies of the English East India company, but, excepting the Seiks, have only a precarious independence. In all parts of the country, the form of government is a pure despotism.

Hindoostan was divided by Aureng-zebe into numerous provinces, which continue to form political divisions in the English possessions, but they have been discontinued in the Indian states. The following table contains a view of these provinces, with the corresponding presidencies or states of the present day :—

Provinces.	*Presidencies or Indian States.*
Agimere,	Bombay Presidency, Rajapoots.
Agra,	Bengal, state of Sindia, states of the Rajapoots.
Allahabad,	Bengal, states of the Bundelcund, nabob of Oude.
Oude,	Bengal, nabob of Oude.
Aurungabad,	Bombay, state of the Nizam.
Behar,	Bengal.
Balagat,	Madras.
Bengal,	Bengal.
Berar,	State of the Nizam.
Bider,	State of the Nizam.
Bejapoor,	Bombay, rajah of Setara, state of the Nizam.
Cashmere,	State of the Seiks.
Coimbetore,	Madras.
Cochin,	Madras, rajah of Travancore.
Delhi,	Bengal, Seiks.
Gondwana,	Bengal, rajah of Nagpour
Gorval,	Bengal.
Guzerat,	Bombay, state of Guicowar, state of Holcar.
Hyderabad,	State of the Nizam.
Canara,	Madras.
Carnatic,	Madras.
Candeish,	Bombay, state of Holcar.
Cutch,	Bombay, state of Guicowar.
Lahore or Punjah,	Seiks.
Mysore,	Rajah of Mysore.
Malabar,	Madras.
Malwa,	Bengal, states of Sindia, Holcar.
Nepaul,	Nepaul.
Orissa,	Bengal.
Salem and Baramal,	Madras.
Northern Circars,	Madras.
Sindy,	State of Sindy.
Travancore,	Rajah of Travancore.

We have already mentioned the states of Hindoostan which preserve an appearance of independence. The rest of the country belongs to Britain, except the territories in the possession of continental powers. These are Goa, Damaun, and Diu, belonging to Portugal (see *India, Portuguese*); Pondicherry, Karikal, Mahe, Chandernagore, and the factories of Calicut, Surat, and Masulipatam, belonging to France (see *India, French*), and Tranquebar and Serampore, belonging to Denmark. See *India, Danish;* see also the articles *East India Companies, Bengal, Bombay, Madras,* &c.

The name of Hindoostan, as before stated, is of foreign origin, the Bramins having no general name for the country over which their doctrines have been disseminated. When they spoke of it as a whole, they designated it by the epithets *Medhyama*, or central; *Punyabhoumi*, or land of righteousness; or *Bharat-Khande*, country of Bharat, one of nine brothers, whose father governed the whole world. The early annals of the Hindoos are so fabulous, that it is difficult to separate the truth from fiction. Their own opinion of their antiquity is wholly chimerical; yet the astronomical knowledge of the Bramins, and the monuments of Hindoo architecture and sculpture, prove the great antiquity of this people, whose country was little known to the Greeks previous to the conquests of Alexander. That conqueror carried his arms beyond the Indus, and Seleucus Nicator, one of his successors, advanced as far as the Ganges. Arsaces, king of the Parthians, and some of the Bactrian kings, also made extensive conquests. About two centuries before the Christian era, the Parthians and Scythians overran all Northern India, or *Indo-Scythia*, as Ptolemy calls it. In the middle of the seventh century, the Chinese penetrated to the countries on the Ganges. At the beginning of the next century, the followers of Mohammed invaded Hindoostan, subjected nearly the whole of the Moultan, and established themselves in Northern India. One of the governors of the conquered provinces, Mahmoud, becoming independent master of Ghisnih (Gazna), was the first modern conqueror of Hindoostan, and founded the Mussulman dynasty of the Ghaznevides, which lasted from 797 to the middle of the twelfth century; he is said to have pushed his conquests as far as Goa. The last prince of this dynasty was deposed in 1152, by Kassin Ghauri, founder of the Ghauride dynasty, which derived its name from the country of Ghaur, and resided in Lahore; the Ghaurides subdued Kanaa and the kingdom of Bisnagor, the Moultan, Delhi, and the country as far as Benares. In the beginning of the thirteenth century, the empire of the Ghaurides was divided, and Kutub, who received, for his share, the conquests in India, founded the Patan dynasty (or, as some call it, the Iletmishi dynasty), and made Delhi the seat of his empire. The reigns of the Patan emperors were disturbed by the invasions of Gengis Khan and Tamerlane. In 1525, the Mogul dynasty was placed on the throne of Hindoostan by the successes of Babur. (See *Moguls.*) Akbar, his grandson, confirmed and extended his power in the northern part of Hindoostan, and reduced Bengal. The history of this part of the country is very confused and uncertain, till the thirteenth century. Towards the end of the fourteenth century, Tamerlane had taken possession of it, and it had subsequently been subject to native princes, or to the Mohammedan emperors of Delhi. Akbar (died 1604) also reduced Cabul and Cashmere. He divided his empire into sixteen subahs (governments), which were subdivided into provinces; the latter were administered by governors, called *nabobs*. One of his descendants, Aureng-Zebe, ascended the throne, after having poisoned his father, and put to death his two brothers. He carried the Mogul empire to its highest pitch of power and glory. The Mahrattas, a warlike people from the Ghauts, were joined by several of the Hindoo princes, and, under the command of Sevajee, conquered an extensive territory. Aureng-Zebe was obliged to treat with them, and to yield them one quarter of the revenue of the provinces in the Deccan, which they had overrun. After the death of Aureng-Zebe, his empire continually declined, and became the prey to revolt and anarchy. The power of the Mahrattas, in the mean time, was rapidly extending, and, in the middle of the eighteenth century, the possessions of the Mogul emperors, although their persons continued to be

espected, were reduced to the city of Delhi and its erritory. The last Mogul emperor received a pen- ion from the English, who (1803) took possession of)elhi and Agra.

HING-CHING (*Chinese*, meaning *representation f sound*). The Chinese alphabet is composed of leographic and phonetic signs; these phonetic gns are all syllabic; they are called by the Chinese *ing-ching*, of which, according to Abel Remusat's hinese Grammar, p. 4, half of the alphabet consists. he Chinese have also a sign by which they can nder ideographic signs phonetic, which, for stance, becomes necessary, when they wish to rite foreign proper nouns, and have no sounds mong their phonetic characters which express the oreign sound. See *Hieroglyphics*.

HIPPARCHUS. See *Hippias*.

HIPPIAS; prince of Athens, son of the great Pisi- ratus, after whose death he assumed the govern- ent, in conjunction with his brother Hipparchus: e latter was assassinated during the Panathenæa, hile conducting a solemn procession to the temple f Minerva, by a band of conspirators, under two oung Greeks, Harmodius and Aristogiton. Hip- as now seized the reins of the government alone, nd revenged the death of his brother by imposing axes on the people, selling offices, and putting to eath all of whom he entertained the least suspicion, fter having forced them to confess by the most readful tortures. This fate fell even upon several of is best friends, whom Aristogiton, full of indignation, ad falsely accused as the conspirators. The Athen- ns, wearied with these cruelties, formed a plan to free emselves from the yoke. They found means to ribe the priests of the Delphic oracle, which com- anded the Spartans to release the Athenians from e tyranny of the Pisistratides. In compliance with e command of the divine Pythia, Sparta broke off er alliance with the tyrant of Athens, who was bliged to yield to the united attack of his foreign nd domestic enemies. Hippias was expelled from e city B. C. 510, and Athens breathed more freely. ut the means by which the voice of the oracle had een gained, did not remain a secret, and the Spar- ns, filled with indignation, demanded the restoration Hippias, but without success. Hippias now ught protection and support from Artaphernes, the trap of Sardis, and induced Darius, who was already ritated against the Athenians, on account of the sistance which they had rendered to the Asiatic reeks, to require them to receive Hippias. Their cisive refusal kindled the first war of the Persians ainst the European Greeks. But the battle of arathon, in 490, destroyed, with the army of Darius, e hopes of Hippias; he himself fell on that bloody y, fighting against his country.

Hippias was also the name of a sophist.

HIPPOCENTAURS, in mythology; a species of onsters, sprung from the union of a Centaur and ire. From the derivation of the word, it is highly obable that it denotes a rider who spears an ox m on horseback, for this term is compounded of e words *ἵππος*, *κεντέω*, *ταῦρος*.

HIPPOCRATES, the most famous among the reek physicians, founder of a school in medicine, d author of the first attempt at a scientific eatment of medicine, was born in the island of Cos, d in the city of the same name, B. C. 456, and be- nged to the celebrated family of Asclepiades, or scendants of Æsculapius, from whom Hippocrates is the seventeenth in descent. His father, Hera- des, a physician, instructed him in the art of phy- , and his education was conducted with all the re that was usual in the principal families, during e flourishing period of Greece. He probably en- joyed the instruction of the philosophers then living at Athens, and, among them, of Heraclitus. He spent the greater part of his life in visiting the dif- ferent cities of Greece, for the purpose of improving in his art. He remained longest in Thrace and Thessaly, particularly in the Thracian island Thasus, and probably travelled also over a great part of Asia. He died in his ninetieth year.

The writings which are extant under the name of Hippocrates cannot all be ascribed to him. There were several of the name. Some of these writings are the productions of the Alexandrian school. Others, though genuine, have been collect- ed, altered, explained, and mixed with additions, by his descendants. The genuine writings of Hippo- crates are, the first and third book on epidemics; aphorisms; the treatise on diet; on air, waters, and situations; on prognostics; some surgical treatises; the oath; the law. The most esteemed edition is that of Geneva, of 1657, in 2 vols. folio. Besides this, we may mention that by Van der Linden (Ley- den, 1665, 2 vols.), and that by Chartier (Paris, 1639 —79, 13 vols., folio, together with Galen). The latest is by Kuhn (vol. 1st., Leipsic, 1825). Hippo- crates was a zealous, unwearied observer of nature, and considered diseases with a free spirit, unpreju- diced by any system; hence we have from him the finest description of their natural course, disturbed neither by medicines nor by any violent or precipi- tate interference. He was by this means best en- abled to become acquainted with the healing power of nature, and with the different ways in which she effects the restoration of the sick, as well as with the exterior means by which she was supported in her operations. He adopted a principle of life as a fundamental power of the living body (*Enormon*) on which life, health or sickness were dependent; but he did not express himself more distinctly respecting it; nor did he enter into many hypotheses and investi- gations on the nature of disease in general. He paid great attention to the exterior influences, as the remoter causes of the maladies; in particular to air, food, climate, dwelling-place, and even to the social relations of the sick. He made the observation, that nature followed, in the course of the diseases, cer- tain periods of increase and diminution, and was led by this to his doctrine of the *critical days*. In his method of curing, the dietetical precepts take the first rank. He advises to adapt the diet to the de- gree of strength of the sick. At the same time, he makes it his object to observe the operations of nature, to lead them, to imitate them, and, as cir- cumstances require, to augment or to repress them. During the increase of the disease, he did not willing- ly undertake any thing decisive, lest nature might be disturbed in her wholesome operation on the matter of disease; but, during the crisis of secretion and evacuation of the matter of disease, or shortly before, he assisted nature by means which promoted the dis- charges. His peculiar merit in medicine consisted chiefly in clearing this science from the useless sub- tilties of the many philosophical sects of that period, and in making it, instead of the exclusive property of the priests, a common good, open to every one who wished to study it; in observing the course of undisturbed nature with a clear eye and an enlightened mind, and in the faithful communication of his expe- rience. He directed the attention of physicians to the importance of exterior influences, to the healing powers of nature, and to the necessity of an appropriate diet; and enriched the doctrine of the symptoms, and of the prognostics in diseases, with a number of observations, founded in nature, and manifesting his great genius and skill as a physician.

HIPPOCRENE (*the horse's fountain*); a spring on

mount Helicon, a mountain in Bœotia, consecrated to the muses, the waters of which possessed the power of poetic inspiration. It was sacred to the muses and Apollo. It is said to have risen from the ground, when struck by the hoofs of Pegasus.

HIPPODAMIA was the name of several females of antiquity; for example, of the wife of Pirithous (see *Pirithous*), king of the Lapithæ. The most celebrated is the daughter of Œnomaus, king of Pisa in Elis. On account of a prediction that he was to be murdered by his future son-in-law, he made a condition that all the suitors for his daughter should contend with him in a chariot-race, and, if he should overtake them before they arrived at the goal, should fall by his hand. He thus succeeded in slaying thirteen, or, as some say, seventeen suitors, when Pelops, by corrupting the charioteer, caused Œnomaus to be upset in the middle of the course, by which means he lost his life. Thus Hippodamia became the wife of Pelops, and mother of Atreus and Thyestes. She committed suicide, from grief at the accusation of having misled these sons to fratricide.

HIPPODROME, from ἵππος, horse, and δρόμος, course, race) was the name, among the Romans and Greeks, of the public place where the horse and chariot races were held. Of all the hippodromes of Greece, the most remarkable was the one of Olympia, of which a description may be found in Pausanias. After this one, there was none more remarkable than that of Constantinople, which still fills the traveller with astonishment. Severus began the erection of this splendid structure, and Constantine finished it, in imitation of the great circus at Rome. It is surrounded by two ranges of columns, extending farther than the eye can reach, raised one above the other, and resting on a broad foundation, and is adorned by an immense quantity of statues, of marble, porphyry, and bronze, of men and beasts, emperors and athletes. Among other remarkable monuments of art, the four bronze horses of Lysippus stood here, which have migrated from Greece to Rome, Constantinople, Venice, and Paris, and have, at last, been transported back to Venice. The Turks called this place *Atmeidan*, that is, *horse-place*, and thus recall to the mind its former destination. It is, at present, 400 geometrical paces in length, 100 in breadth, and, passing over many slight irregularities, almost quadrangular; and, notwithstanding the corroding touch of time, some remarkable relics of antiquity are still found here.

HIPPOGRIFF; the name of a fabulous animal, a griffin whose body terminated in that of a horse. It was a symbol of Apollo, but it is uncertain whether it belonged to him as the god of the muses or of the sun. Buonarrotti thought that the Greeks had borrowed this symbol, together with the worship of Apollo, from the East, without knowing the exact signification; and this is not improbable. Although it may have been originally the symbol of the god of the sun, the poets sometimes attribute it to the god of the muses, instead of Pegasus.

HIPPOLYTUS. See *Phædra*.

HIPPONAX; a Greek poet, born at Ephesus, 540 years before the Christian era. His satirical raillery obliged him to fly from Ephesus. As he was naturally deformed, two brothers, Buphalus and Anthermus, made a statue of him, which, by the deformity of its features, exposed the poet to universal ridicule. Hipponax resolved to revenge the injury, and wrote such bitter invectives and satirical lampoons against them, that they hanged themselves in despair.

HIPPONOUS; the original name of the celebrated Bellerophon, the son of Glaucus and of a daughter of Sisyphus, king of Corinth. Having unintentionally killed his brother, he fled to Prœtus, king of Argos, who received him hospitably, and expiated him. But queen Antea soon conceived a criminal love for the youth; and, when Bellerophon, revering the rites of hospitality, did not return her affection, she avenged herself by calumniating the innocent youth to her husband. Prœtus sent him to his father-in-law, Jobates, king of Lycia, with tablets having characters engraved on them which were of dangerous import to the bearer. Jobates, in compliance with the hospitable custom of the heroes of antiquity, entertained the stranger during the space of nine days, before he inquired into the object of his visit; and having, on the tenth day, learned his commission, he also feared to lay hands on his guest. He ordered him, however, to kill the Chimera (q. v.), a monster which had three heads, and breathed fire, being convinced that no valour would enable him to sustain this combat. But Bellerophon, mounted on Pegasus—a present from Pallas—fought in the air, and overpowered the monster. After this, he conquered the Solymians, and, at last, the Amazons. Jobates, then recognising the divine origin of the youth, gave him his daughter Philonoe in marriage, and shared his kingdom with him. The children of Bellerophon were Isanderos, Hippolochus, and Hippodamia. He, at length, attempted to ascend to Olympus on his winged steed, but, as some writers assert, was hurled down by the thunderbolt of Jupiter; according to others, Pegasus, stung by a gadfly, threw him off; and from that time he avoided the face of man, and wandered through the deserts of Aleia in Cilicia, where he perished with hunger.

HIPPOPOTAMUS (*H. amphibius*). This genus of the *pachydermata* consists of but a solitary species, at present existing; recent observations, however, have shown, that four others lived in the earlier ages of the world. The hippopotamus is fully equal to the rhinoceros in size, and is not less formidable. He has four cutting teeth in each jaw, those in the lower jaw straight and pointing forward nearly horizontally, the two middle ones being the longest. The canine teeth, or tusks, are four in number; those in the upper jaw short, those in the lower very long, and obliquely truncated. They are sometimes two feet in length, and weigh upwards of six pounds. These tusks are in great request with the makers of artificial teeth, as they are not subject to turn yellow. In figure, the hippopotamus more closely resembles an unwieldy ox than any other animal. A male hippopotamus has been known to be seventeen feet in length, seven in height, and fifteen in circumference. The head is very large, being three feet and a half in length; the mouth is amazingly wide, the ears small, pointed, and lined with fine, short hairs; the eyes and nostrils are small; the lips very thick, broad, and beset with a few scattered tufts of short bristles; the body is thinly covered with very short, whitish hair, more sparingly distributed on the under parts; the tail is short, slightly compressed, and almost bare; the legs are short and thick; the feet large, and divided into four parts, each furnished with a hoof; the skin is very thick, and of a dusky colour.

The hippopotamus is confined to Africa, and abounds most in the lakes and rivers of Abyssinia, Nubia, and Upper Egypt; but these animals are also found in considerable numbers in the Gambia, Niger, &c. They formerly were plentiful near the cape of Good Hope, but are now nearly extirpated. To preserve the few remaining, the government have prohibited the shooting them without express permission.

The hippopotamus appears to have been well known to the ancients, though their descriptions of its form and habits are inaccurate. Thus Aristotle and Pliny describe it as having hoofs like an ox, a

ane like a horse, a flat nose and a tail like a hog. hat the latter author should have been so erroneous extraordinary, as several of these animals had been xhibited at Rome. Scaurus, during his edileship, ad five crocodiles and a hippopotamus in a temporary ake, and Augustus produced one on the occasion of is triumph over Cleopatra, and we find the figure f it on medals and mosaic pavements. But the ncients knew no other mode of description, than at of comparing the parts of an unknown animal ith those of animals well known, hence giving se to innumerable errors. The *behemoth* of Job is onsidered by most commentators to be the hippopo- mus, as the description of his size, manners, food, od haunts is very similar to those of the latter animal. mong the ancient Egyptians, it was revered as a ivinity, as it is among the Negroes of Congo, Elmi- a, &c.

The great strength of the hippopotamus would ender it one of the most formidable of quadrupeds, ere its disposition ferocious; but it is mild and gen- e except under great provocation or when wounded. hen excited, however, his power is dreadful: he has een known to destroy boats with his teeth, or upset hem, by raising them on his back. There is no doubt hat it can be tamed. Belou states he saw one kept n a stable, which showed no inclination to escape, r to commit any mischief, even when released from onfinement; and Sparmann thinks they might be eared without much difficulty. The voice of the oung is a squeak, like that of a hog; that of the dult is said by some writers to resemble the neigh- ng of a horse, whilst others represent it as a loud, onorous noise, between the bellowing of an ox and he roaring of an elephant. From the unwieldiness f his body, and the shortness of his legs, the hippo- otamus cannot move very swiftly upon land; when ursued, he takes to the water, and, plunging in ead foremost, sinks to the bottom, where it is said e can move along with the same slow and stately ace as in the open air. He cannot, however, conti- ue for any great length of time thus immersed, but s obliged to rise to the surface for breath. In man- ers, the hippopotamus approaches somewhat to the og. His sleeping place is usually muddy islands, vergrown with reeds; in these places, also, the emale brings forth. She is supposed to go with oung about nine months, and to produce but one at birth. She is often seen in the rivers with her calf n her back. Her manner of suckling somewhat esembles that of a cow. A herd of females has but ne male. The males often contest each other's ight over the females; the contest that ensues, as ay readily be supposed, is terrible. Their bite is ery severe, and masses of flesh, torn out by the rasp of their monstrous jaws, mark the spot of their ncounters. Sometimes, the weakest will attempt to y, leaving his conqueror master of the field; but his seldom occurs, and it not unfrequently happens hat one, or even both, perish on the spot.

Although the hippopotamus is an inhabitant of the waters, his food is entirely of a vegetable character, n search of which he leaves his liquid residence, and anges along the banks, committing wide devasta- ions through all the adjoining country. On the banks f the Nile, he often defeats the hopes of the hus- andman, whole fields of grain and sugar-cane being lestroyed, not only to satisfy his appetite, but also rampled down by his great weight. It has been retended, that the hippopotamus devours great quan- ities of fish; but it appears from the best evidence, oth of travellers and from his anatomical structure, hat he is nourished exclusively on vegetable food. The stomach, like that of the ruminating animals, is livided into several pouches.

The flesh of the hippopotamus is eaten in Africa. The Hottentots, and many other nations, are extreme- ly fond of it. The fat resembles lard. The choice pieces are said to be the gelatinous part of the feet and the tongue. The hide, which, as has already been stated, is very thick, is converted by the Negroes into shields, and is also used by the inhabitants of the cape for whips. It is asserted by Labat, that the blood is used by Indian painters in the preparation of their colours.

The modes of capturing these animals are various. The Egyptians throw a large quantity of dried peas on some place where they expect the hippopotamus to pass; these the hungry animal eagerly devours; this mass of dry food disposes him to drink, and the water, swelling the pease in his stomach, destroys him (*Hasselquist*). The Hottentots sometimes prac- tise the same stratagem. But they more commonly either take them in pitfalls prepared for this purpose on the banks of rivers, or shoot them with tin balls (*Sparmann*). In some places, the natives place boards full of sharp spikes in the ground, which these heavy beasts strike with their feet, become disabled, and fall an easy prey to the hunter. The most dan- gerous method is harpooning them; this, however, is a very common mode in Africa, and it is said that it is by no means rare to see ten or a dozen canoes employed in this kind of chase. Among the fables of the ancients respecting them, is, that they vomited fire; and Pliny relates, that this animal, when he feels his habit overcharged, repairs to some place covered with sharp reeds, and obtains a discharge of blood by lying down upon them in such a posture, that they pierce the tender parts of his skin.

As has already been mentioned, the remains of four extinct species have been discovered in Europe, and described by Cuvier. These are the *H. antiquus*, which appears to have been about the size of the existing species. The bones of this animal are found in considerable numbers in the Val d'Arno Superiore in Tuscany, and have also been met with near Montpellier and Paris in France. *H. minor*, apparently about the size of a wild boar; it is not known where the bones were found. *H. medius;* this species which is established on two fossil teeth, is supposed to have been intermediate between the two latter. *H. minimus;* this appears to have been very small, not exceeding the common hog in size. Cuvier, in arranging these two latter species with the hippopotamus, remarks, that although it is probable that such is their true situation, yet that it is impos- sible to be absolutely certain of the fact, as no incisor or molar teeth have yet been discovered. No re- mains of this genus have yet been discovered in America.

HIRSCHBERG, after Breslau, the chief commer- cial place in Silesia, particularly in respect to the linen trade, is charmingly situated in the principality of Jauer, government of Liegnitz, at the confluence of the Bober and Zacke, not far from the Riesenge- birge, has above 6,200 inhabitants, partly Catholics, partly Protestants, with a good gymnasium. It is remarkable for its bleacheries. Hirschberg has also cloth manufactures, a sugar refinery, &c. About five miles distant is Warmbrunn, a mineral bath, much resorted to from the north-eastern part of Germany. The circle of Hirschberg contains over 47,000 in- habitants, who mostly live by the manufacture of linen.

HISPANIA was the name given by the Romans to the whole peninsula of the Pyrenees, now Spain and Portugal. The Greeks denominated it *Iberia*, and it received the name of *Hesperia* (the West), from the Roman poets. Spain was inhabited in the earliest times. The first inhabitants were the Cynetæ or

Cynesi on the southern coast, the Tartessi near the pillars of Hercules, and the Sicani and Siculi. The two first nations were probably driven by the Iberians from Gaul to Spain, and the two latter by the Iberians from Spain to Italy. The Iberians, who were distinguished for their love of liberty, their warlike and cruel spirit, were followed by the Celts, of whom a portion remained unmixed, under the name of *Celtici*, while another part united with the Iberians, and formed with them the gallant Celtiberi. To these inhabitants, Phœnician and Greek colonists were afterwards joined, and finally Roman. Those colonists dwelt for the most part on the straits, and were distinguished for civilisation and an extensive commerce. The first conquests in Spain were made by the Carthaginians after the first Punic war (about 240 B.C.), first under Hamilcar, and subsequently under Hasdrubal, who founded Carthago Nova (the present Carthagena). The Romans limited the Carthaginians to the river Iber; but Hannibal captured Saguntum (see *Saguntum*), and thus gave rise to the second Punic war. The armies of Rome, under Scipio, expelled the Carthaginians; but the nations beyond the mountains, the Celtiberi, Carbetani, Vaccæi, &c., continued free, and the northern and western tribes were as yet unknown. These tribes, who had hitherto subsisted on the pay of the Carthaginians, and on the plunder of the southern Spaniards, began a war with the Romans, which ended, 200 years after, with their entire subjugation. Cato was the first (about 196 B. C.) who was successful against them, and T. Sempronius Gracchus forced the Celtiberi to sue for peace. But the avarice, perfidy, and barbarity of the Roman generals soon created new wars. The Lusitani took up arms under Viriathus, but submitted, after the Romans had got rid of him by artifice. Immediately after, the Numantian war broke out, which Scipio Africanus terminated, after a fearful battle, by the capture of Numantia (see *Numantia*), 133 B. C. The Romans remained in quiet possession of the eastern and southern coasts, and maintained the respect of the nations in the interior of the south. The famous Sertorius finally subdued the Celtiberi and Lusitani, and compelled them to receive Roman manners and tactics. Augustus first subdued the northern countries in the celebrated Cantabrian war; though single tribes, such as the Vascones and Artabri retained their freedom. At first, the Romans divided Spain into Hispania Citerior and Ulterior, and afterwards into Bætica, Lusitania, and Hispania Tarragonensis, and finally into seven distinct provinces. Even in the earliest times, the soil was celebrated for fertility. It abounded in the base and precious metals, which the Phœnicians exported thence. It moreover produced excellent horses and sheep, and was fruitful in wine, oil, and grain. See *Spain*.

HISTORICAL PAINTING. See *Painting*.

HISTORICAL SCIENCES and HISTORICAL LITERATURE (see *History*, *Geography*, *Chronology*, *Numismatics*, *Genealogy*, *Heraldry*, *Diplomatics*, *Antiquity*). The *Bibliotheca Historico-geographica* (more than 9000 articles), published by Enslin, at Berlin, in 1825, is a catalogue of all the valuable works on history, geography, and the auxiliary sciences, which have appeared in Germany especially, from 1750 to 1824.

HISTORY (from the Greek ἱστορία*); a word, which, with the progress of the science it designates, has received a more and more extensive meaning, until it has come to signify that science, which treats of man in all his social relations, political, commercial, religious, moral, and literary, as far as they are the result of general influences extending to large masses of men, and embracing both the past and the present, including therefore every thing which acts upon men, considered as members of a society; its object is to represent the relations in which man exists, and the influences to which he is subject, with truth and clearness.† In investigating these relations, and dispersing the clouds which often envelope truth, history is a science; in exhibiting its treasures of truth, an art. Individuals, events, actions, discoveries, measures, are historical as far as they have a bearing upon the many, in their relations to each other; or as far as they disclose a truth, important with respect to the relations above-mentioned. In other words, man in society is the subject of history; and, as the term *society* may be used in a more or less extensive sense, we have universal histories, which ought to comprise the history of all mankind in its progressive or changing state, if they answered fully to their name; and histories of single countries, tribes, cities, societies, institutions, and even families. But we cannot speak of the history of an individual, unless he is the representative of many, or was so situated that his steps and actions had a decided bearing upon many. The history of Napoleon, for instance, would be very different from his biography. It is evident, then, that the difference between a history and a chronicle, arises by no means from the importance of their subjects. There are chronicles of empires, and histories of cities; the former giving an enumeration of events or actions only, whilst the latter exhibits the changes which man has undergone in that city, in regard to his social relations. Biography is the description of the life of an individual, always keeping the individual in view. Again, one or another social relation may be selected as the particular subject of a history; and hence we have political history, literary history, histories of religious inventions, &c. As no science but mathematics affords precise definitions and divisions, the question, What entitles a subject to be considered historical, may be very differently answered by different individuals, or nations, or ages; and a historian may even deviate from his general rule, and relate events or actions which, though not of a decided influence on society, are remarkable or interesting for some other reason; but in so doing, he deviates from the general rule. The interesting nature of a fact, does not properly render it historical, unless it has an influence upon society; for instance, an interesting heavenly phenomenon is not of itself of historical importance, but it becomes so if it exerts, in any way, a wide-spread influence; for instance, if it be considered as an indication of the divine displeasure, and lead a people to take measures to conciliate the offended Deity, or if the notions entertained respecting it show the state of science at a certain period.

Having thus touched upon the class of facts which

* According to Verrius Flaccus, *rerum cognitio præsentium*, the knowledge of things present; so that the idea of narration seems to be a secondary meaning of *history*. The German *Geschichte* (from the verb *geschehen*, to happen), on the other hand, means originally something which has happened, and secondarily the relation of events.

† This definition of *history* does not comprise *natural history*; and, according to the common usage of the two terms they may actually be considered as totally different. If, however, we should give a definition embracing both, it would be—History is the science which embraces all the objects of *external experience*, including the present and the past; that is, all the phenomena which occur in space or in time. The representation of the present is *description*; the representation of the past, *relation*. From this view of history the Germans derive their meaning of the phrase *historical sciences*, by which they mean all those branches of sciences, whose subjects are derived from experience or from the external world, and are perceived by the senses, in contradistinction from the abstract sciences, as mathematics and metaphysics.

fall within the province of the historian, we shall now say a few words upon the mode in which he is to give them. When the historian is called upon for facts, what is the meaning of the demand? Of course, he is to give no wilful misstatements. What then is meant? That he should confine himself to a bare register of events, and make his work a chronological table, or, at best, a book of annals? This might suit the purposes of those who wish to prevent the true causes of events and the true character of periods from being seen, but it would not comport with the character of history. The historian is to give facts, but he is to give them with all their attendant circumstances, showing both the causes from which they sprung and the consequences to which they gave rise; otherwise, he is no better than a chronicler. In the daily occurrences of private life, how much explanation is necessary to enable us to form a just estimate of actions and events! If we say that A killed B, without stating whether in self-defence or with malice prepense, who can estimate rightly the conduct of A? It is the same in history. In the testimony which the historian bears to the character of the past, before the tribunal of posterity, he is bound to state not merely "the truth," but "the whole truth." That Henry IV. was killed by Ravaillac May 4, 1610, is a historical fact; but the explanation of the conduct of Ravaillac involves a consideration of the whole political state of France at the time. It is a very common mistake to suppose that a historian, by confining himself to facts, might satisfy all parties, in the same manner as a mathematical demonstration is equally conviucing to every one. Take, for instance, the French revolution. There exist several enumerations of all the laws which were passed, and all the memorable events which happened during that period, chronologically arranged. These, of course, if faithfully drawn up, ought to be equally acceptable to royalists and republicans. But is this history? Are these statements of facts such as are required of the historian? He is not to tire us, indeed, by arguments or declamations, but he is bound to give the whole connected series of facts, not the broken links of the chain. Therefore, in this case, he must set forth the causes of the revolution, found in the previous state of France. At this point, of course, different views will immediately arise. Some writers will think they discern the causes of the revolution as early as the time of Louis XIV., in his profligate administration, and concentration of all power in himself, and will show how these causes gradually acquired their fearful energy; whilst others will insist that the revolution was merely the work of a set of factious men. Thus we see how groundless is the expectation of writing history so as to satisfy every body. If the daily occurrences of life are viewed in very different lights by equally intelligent persons, how can it be otherwise with the past! The demand that the historian should confine himself to facts, is so far correct, that he should not colour his statements of events to adapt them to his own theories. Nothing is more seducing, and, at the same time, more dangerous, than leading ideas in history, to which the facts have been too often made subservient.

We now come to a more particular consideration of the arduous duties of a historian. If truth is his greatest object, justice is his first duty. He must have the rare power of renouncing his private feelings, and, whilst he investigates or writes as a historian, must elevate himself above his country, sect, and age, so as not only to be willing to acknowledge the faults of his own party, and the merits of his adversaries, but, what is far more difficult, he must divest himself of the peculiar views of his age, or country, or sect, and be able to enter into those of others, and not measure them by his own standard. If he is a republican, he must not carry his republican dislike of royalty with him when he studies the history of monarchy, but must unbiasedly investigate the monarchy with all its circumstances, and the series of events which affected it, and then judge of its value. He must not carry democratic principles into the study of the middle ages, nor his notions of modern society into his investigations of the character of the ancients. The conclusions which he draws must be those of a philosopher, uninfluenced by the circumstances which immediately surround him. Nothing is more inconsistent with the true duty of the historian, than to measure other times by the conceptions and views of his own age. So much for the duty of a historian.

As to his qualifications, he must be endowed by nature both with that power of the poet, which can conceive the character of great men and great periods, totally different from his own, and with that acuteness and soundness of judgment, which can detect truth through the clouds of falsehood and prejudice. He must also have received from nature that unrelaxing zeal, which does not shrink from the most toilsome and long continued labour. As to his acquirements, they must be of the most extensive character. He must be possessed of extensive philological knowledge, as a key to the various sources of information. To the historian of modern times, the principal languages of modern Europe are indispensable. Secondly, he must have an encyclopedian knowledge of the sciences and arts in general (and under this head, philology returns as one of the most important branches of knowledge), because all are essentially connected with the progress of mankind; and without such knowledge, the historian will not be capable of understanding the multiplied modes of human improvement, and will be liable to present narrow views of the state of society at any given period. A careful examination of all historical sources remains—a labour as necessary as it is gigantic. The Germans, always foremost where zeal and erudition, as well as liberal criticism, are required, have also opened the path in this direction. We admire the vast knowledge of historical writers, displayed, for instance, by Ruhs; but the great end of history seems to us to be particularly promoted by the method followed by professor Ranke, in his contribution to the criticism of modern historians, Berlin, 1824, (*Zur Kritik neuerer Geschichtschreiber*), in which he endeavours to determine the degree of confidence we owe to, and the degree of information contained in, the chief sources for the beginning of modern history. He justly remarks in the preface, "As one would feel on entering a numerous collection of antiquities, in which the genuine and spurious, the beautiful and repulsive, the magnificent and mean, belonging to various nations and ages, are mingled, thus would he feel, who should be at once brought to all the various records of modern history. They speak to us in a thousand voices; they present the greatest variety of character; they are clad in all colours. Some strut in a solemn gait; they wish to represent; they think they take the path of the ancients. Others strive to draw lessons of wisdom for future ages from the past; many wish to defend or to accuse; not a few endeavour to explain events from the hidden springs of conduct which lie deep in the heart. There are some, whose only object is, to relate simply what has happened. Documents, genuine and counterfeit, lie in crowds before us. The most important question is, Who, in this multitude of witnesses, is possessed of original knowledge; who can really

inform us?" A few such critics as Ranke, would contribute greatly to the progress of historical knowledge, and render the same kind of service to this science as the Schlegels have rendered to belles lettres. The Germans are less successful in historical execution. If they surpass all nations in historical knowledge, they are surpassed by several in historical delineation. In this respect, our own historical writers take the lead; and it is only since the Germans became acquainted with Gibbon, and Robertson, and Hume, that their modern historical writers have improved in the art of historical narration. One reason of this circumstance is, probably, the want of popular elements in their government, so that they do not acquire the habit of addressing the public in a direct and lively manner, either in speech or writing.

Auxiliary to history are *chronology* and *geography*, so often called the *eyes of history*; *ethnography*, which treats of the customs and characteristics of a nation; *mythology*, as well for the purpose of comprehending the whole character of a people from the beginning, as to find out in its fables, if possible, the corroboration of facts (for instance, that civilisation came to Greece from Egypt); *philology*, which has been already mentioned; *numismatics*, or the knowledge of coins and medals, of importance, particularly for those ages of which few written documents exist; the knowledge of monuments, and *epigraphics*, or the knowledge of inscriptions, including hieroglyphics; *heraldics*, *diplomatics* (q. v.), a subdivision of which is *sphragistics*, or the knowledge of seals; and, as we have already mentioned, the *criticism of historical sources*, from the ancient papyrus to the modern memoir, and from state-papers down to newspapers. (See the article *Newspaper*.) Besides, it is necessary to be well acquainted with the history of *historiography*, to know what has been written, and the progress and decline of historical writing.

Herodotus is to be considered as the father of European history. He tells, with the most unaffected simplicity, all that has been told to him. His work is the childlike beginning of an art; yet, sometimes, even he feels the great call of the historian, in all its dignity, as when, after having mentioned that several persons are each named as the traitor who led the Persians round the mountains at Thermopylæ to the rear of the Greeks, he pronounces, "but it was Ephialtes, and him I write down." However, he has often been overrated by the learned. The Greeks produced other and greater historians, of whom Thucydides was the greatest. The period which began with Herodotus lasted to Procopius and Cassiodorus, or to the fifth century, A. D. In this period, the Romans likewise produced many and excellent historians. When civilisation, however, declined in the West, history fled to Constantinople, where it was fostered, at least in some degree. The whole of Western Europe was in the most barbarous state, and the little knowledge that existed had taken refuge in the monasteries, where the deeds of the age were recorded in chronicles, from the fifth century to the fifteenth. Gregory of Tours (q. v.) opens this series. At the same time, feudalism, which may be called the political form of individuality, produced in France that remarkable branch of literature, the *memoire*. In the feudal times, the individual acted for himself, and hence the histories of those times are, in a great measure, narratives of the actions of individuals, whilst, in ancient times, the state prevailed over the individual, so that Xenophon and Cæsar, even in describing events in which they were the principal or very important actors, speak in the third person. With the latter, however, it may arise also from a feeling of historical dignity, as Frederic the Great and Napoleon likewise speak of themselves in the third person. The crusades enlarged the territory of European history; and the growth of a third class—the citizens—and the revival of commerce had a salutary influence upon the spirit of the age, and, with the restoration of ancient literature, upon the study of history. In the cities, a new state of society was developed; a struggle for liberty and independent government commenced; and thus a want of something better than the dead chronicles of the cloisters was created. The art of printing was invented; the knowledge of foreign and distant countries was enlarged by commerce, travel, and missions; the various national languages were cultivated. The reformation created a new spirit of investigation and thirst for knowledge, and, by degrees, historical writing was more and more studied. Italy, to which we must recur for the beginning of almost all branches of modern civilisation, furnishes the first instances of distinguished historians in modern times. Guicciardini, Machiavelli, and others, opened the path, which the writers of France and England soon entered. In Germany, history was long in shackles; the philologists cultivated only Greek and Roman history, the theologians Biblical history, or other portions of history only in a religious point of view, whilst the jurists studied the history of the German empire, merely as an auxiliary to their profession. A better period did not begin until the time which we have already indicated. History can truly flourish only under the protection of liberty. Flattery poisons it. The fear of offending established views destroys the power of investigation, and its effects are very perceptible in particular departments of historical research. Whilst political history began to be cultivated late in Germany, more has been done there for ecclesiastical history than in any other country, because so much liberty of religious investigation exists no where else. We speak not of legal liberty, but of that allowed by public opinion. In this country, however, very little has been done for ecclesiastical history, although we were the earliest to produce great civil historians. History has several points in common with dramatic poetry; among others, that just mentioned. Dramatic poetry cannot thrive in a despotic government, because it exhibits characters with boldness, whilst lyrical poetry, the element of which is admiration and adoration, may prosper at a court. The high rank and vast extent of history are obvious, embracing, as it does, the picture of man in every stage of improvement, and teaching us how the present age is connected with the past; what we owe our predecessors, and how we should profit by their example; removing that feeling of self-complacency, into which individuals acquainted only with their own confined sphere, or generations unacquainted with preceding ones, easily fall; it shows us that, if we surpass former ages in some branches, they were before us in others. History makes man modest, and yet it elevates him, by showing him the great votaries of virtue, and the height to which his nature may rise. The freer a nation is, and the more its welfare is left to itself, the more necessary is a general study of history. Without it, we cannot properly understand the object of existing laws and institutions; and, instead of developing them farther, if they are arbitrary, the hand of the ignorant will tear them down; whilst the bad are often left, from the same inability to comprehend their character.

History may be divided into, 1. Ancient history, which begins with the first records of mankind, or, if we begin with history which rests on critical grounds,

with the first establishment of states and kingdoms, and comes down to the destruction of the Roman empire, A. D. 476; 2. the history of the Middle Ages, which begins with 476, and comes down to the discovery of America in 1492, because this event produced a decided change in commerce, politics, and science; others take the reformation as the close of this period; 3. Modern history, from 1492, to our own times. Future historians will, perhaps, comprise the (so called) *middle ages* and the period extending to the American revolution under one head, and call it the *feudal period*, whilst the succeeding period may be called the *democratic*.

See Meusel's *Bibliotheca historica Struvio-Buderiana* (1 vol., Leipsic, 1782); Ruh's *Entwurf einer Propädeutik des Historischen Studiums* (Berlin, 1811); Wachler's Account of Historical Inquiries and the Historical Art since the Revival of Letters in Europe (2 vols., Gottingen, 1812—1820, in German), and *Lehrbuch der Geschichte* (Manual of History, for the use of higher schools, fifth edit., 1 vol., Breslau, 1828); *Bibliotheca historico-geographica* (Berlin, 1825).

Synchronistic tables are of great use in the study of history, and we know of none better than those of Bredow, a German. In what follows, we shall give a chronological view of the outlines of history, with special reference to the latest times. Various modes of division may be adopted in such tables. We trust those used will be found sufficiently convenient. For the history of particular countries, see the respective articles.

A GENERAL CHRONOLOGICAL TABLE.

B.C.	
About 3000	[Twilight of history before the deluge of Noah.] Deluge. Noah.—Increase of mankind.—Patriarchal times (Union of the civil and religious authority in the person of the father of the family or tribe).
About 2500	Nations on the Nile, Euphrates and Tigris, on the Indus and Ganges.
About 2400	Ancient Assyria.—Belus.—Haik in Armenia.—Yao in China.
About 2300	Thebes (Egyptian).—Menes.—
About 2200	Canals of the Nile.—Astronomy at Babylon.—Buddha on the Ganges.
About 2100	Busiris in Egypt.—Tchew-Kong in China.
About 2000	Memphis.—The Pharaohs.—Castes in India and Egypt.—Assyria Major. Ninus. Semiramis.—Abraham the Chaldæan in Palestine.—Persia: Chedorlaomer. Phœnicians. Damascus.—Struggle of the ancient monotheism in India with a new polytheism (Buddha and Brahma; Kuros and Pandos). Emigrations.—The ancient faith takes refuge in distant countries.
About 1900	Hebrews. Isaac, Jacob. The Edomites. Esau.—The Phœnicians in Argos. Inachus.
About 1800	The Hebrews in Egypt.—Joseph.—Sidon.—Bactra.—The deluge of Ogyges. Phoroneus.
About 1700	The Hycsos in Phœnicia.—Italy discovered; Iberians, Ausonians, Umbrians. Œnotrus.
About 1600	Colonies of priests to Europe.—Cecrops in Greece. Worship of Jupiter at Dodona; Caucasians in Thessaly; Deucalion. Deluge.
500	Exodus, or flight of the Israelites from Egypt; Moses.—Cadmus in Bœotia.—Danaus in Argos—Laws given to the Israelites on Mount Sinai; Twelve Tribes. Conquest of Canaan.—Joshua.—Judges.—Agriculture in Attica; Ceres.—Corinth; Sisyphus. Panathenæa.
About 400	Mœris in Egypt; sole monarchy.—Trojan kingdom.—Crete; Minos I.—Oracle at Delphi.—Tyrrhenians in Upper Italy.—Sesostris; conquests and buildings.—Wu-Ting in China.—Pelops; navigation of the Pontus Euxinus; Phryxus and Helle.
About 300	Phrygia; Gordius; Midas.—Theseus; sole monarchy over Attica. Evander the Arcadian in Latium.—Minos II. of Crete; laws; labyrinth; Dædalus. Tyre.—Argonauts; Jason, Hercules, Castor and Pollux, Orpheus.—The seven chiefs before Thebes.—War of the Epigoni.—Siculi.
1000	Apis in Memphis.—Crishna on the Ganges.—Æsculapius in Thessaly.
984	Trojan war; destruction of Troy.—Emigrations. (Continuation of the religious struggles in India.)—*End of the fabulous period.*—Victory of polytheism. It destroys the patriarchal state, and the monarchy which had proceeded from it, and gives rise, in Asia and Africa, to pure despotism, in Europe to democracy.
944	Building of the pyramids in Egypt; Cheops, Cephrenes.
900	Worship of Apis.—Wu-Wang in China.—Samson; Philistines. Samuel.—Heraclides in the Peloponnesus. Pyrrhus in Epirus.—Colonies in Italy; Patavium, Lavinium, Alba.—
800	Æolian confederacy; Smyrna, Mitylene. — Jewish monarchy in Palestine; Saul, David, Solomon. Building of the temple. Wars with Syria.—Ionians in Asia Minor. Hadadezer.—Commerce by caravans; Tadmor built.—Locman and Surey in India. Foundation of Utica.—Two kings in Sparta; Procles, Eurystheues.—Gades (Cadiz) founded.—Codrus d. Republic of Athenes.—Græcia Magna; Cumæ, Parthenope.
700	Flourishing period of the Hebrews; commerce with Tyre and Ophir. Division; Judah and Israel. Kingdom of Damascus.—Sesac in Egypt. Dorians in Rhodes. Expulsion of the Heraclides, Bacchis.—Etruscan confederacy.—Homer.—
600	Fall of the Assyrian empire. Sardanapalus (874).—Olympian games at Elis; Iphitus.—Carthage built (885).—Lycurgus in Sparta. Suen-Wang in China.—Caranus founds Macedonia.—
500	Chaldæans in Mesopotamia.—Meroe flourishing.—Reckoning by Olympiads (777). Phul; new Assyrian empire.—Foundation of Rome (754); Romulus.—

B.C.	
	Æthiopians in Egypt; Sabachus.—First war of Sparta with Messenia (743)—Foundation of Syracuse.—Conquest of Samaria; end of the kingdom of Israel.—Babylonian-Assyrian empire (Esarhaddon).—Media independent; Dejoces.—Numa Pompilius, king of Rome.—Grecian colonies in Italy.—
700	Second Messenian war; Helots.—Chaldæans in Babylon. Twelve monarchies in Egypt.—Conquest of Persia; Phraortes.—Coasting voyages to Taprobane (Ceylon). Carian navigators. Maritime code of Rhodes.—Sole monarchy in Egypt; Psammeticlus.—Zaleucus in Locris. Cypselus in Corinth.—Messina, Byzantium, Ostia founded.—Tullus Hostilius, Ancus Martius, Tarquinius I., kings of Rome.—Draco in Athens.—Cyaxares.—Nabopolassar. Nebuchadnezzar.—Victory of the latter over Necho, the Egyptian king, at Circesium. Appearance of the Massagetæ. Invasion of the Cimmerians and Scythians.—Zoroaster in Persia.—
600	Babylonian-Chaldæan empire. Nebuchadnezzar conquers Jerusalem; fall of Judah. Babylonish captivity.—Solon in Athens.—Pythian and Isthmian games. Lesbian bards (Alcæus, Sappho).—Tyre destroyed; New Tyre; commerce concentrates there.—Servius Tullius, king of Rome; Celts in Cisalpine Gaul.—Cyrus conquers the Medians at Pasargadæ; Persian empire.—Pisistratus at Athens.—Water-clocks (Anaximenes).—Crœsus conquered. Chaldæans in India.—Babylon destroyed. Return of the Jews (Zerubbabel).—Tarquin II., king of Rome.—Phocæans found Massilia.—Cambyses, Persian king.—Conquest of Egypt. (Psammenitus.) Zamolxis in Thrace. Darius I. (Hystaspes), Persian king.—Expedition to Scythia and India.—Confucius in China. (End of religious wars.) Pure monotheism survives only in the deserts and mountains of Asia and Europe.—Complete victory of polytheism; and monarchy declines.—Carthaginians in Sicily.—The Alcmæonides expel the sons of Pisistratus from Athens (ostracism); Collatinus and Brutus, chiefs of the aristocracy, expel the Tarquins from Rome.—Aristocracy established.—Rome maintains this government against the Tarquins and Etruscans (Porsenna).—
500	Sardis destroyed by the Greciane, Miletus by the Persians.—Persian wars.—Miltiades victorious at Marathon.—Xerxes, Persian king.—Celts under Bellovesus in Upper Italy.—Party struggles in Rome (patricians and plebeians;—tribunes of the people; Coriolanus.)—Victory of the Greeks at Salamis and Platæa (Themistocles, Pausanias).—Battle of Thermopylæ (Leonidas).—Defeat of the Carthaginians at Himera. Artaxerxes I., Persian king.—Restoration of the worship of Jehovah at Jerusalem (Ezra, Nehemiah). Twelve tables at Rome.—Sophocles, Æschylus in Greece.
460	Cimon victorious on the Eurymedon; peace of Cimon; deliverance of the colonies in Asia.—Age of Pericles (Herodotus, Euripides, Pindar, Hippocrates, Aristophanes, Socrates).—Peloponnesian war: Alcibiades, Thucydides.—Increase of the popular power in Rome.—Darius II., Persian king.—Diocles in Syracuse.—Carthaginian wars in Sicily (Dionysius).—Veji; (standing army of Rome).—Victory of the Spartans at Ægospotamos (Lysander).—Athens conquered; thirty tyrants.—Thrasybulus.—Artaxerxes II., Persian king.—Delhi built.—
400	Cyrus the Younger's expedition into Upper Asia. Retreat of the 10,000 Greeks, Xenophon.—Victory of Conon at Cnidus. Victory of Agesilaus at Coronea.—Brennus with the Celts in Rome. (Allia).—Peace of Antalcidas, Theban war (Leuctra, Mantinea; Pelopidas, Epaminondas).—Artaxerxes III., Persian king.—Success of the plebeians in Rome.—Plato; Praxiteles.—Philip, king of Macedonia. Sacred war. (Phocian.)—Sidon destroyed.—Babylonian-Phœnician commerce to the Persian gulf (Gerrha emporium for India).—Commerce of Rhodes with Africa and Byzantium.—
350	Meng-Tse in China.—Indian commerce. (Mart for the caravans at Palibothra.)—Voyages of the Carthaginians

B.C. (Hanno).—Nectanebus conquered.—Factions in Greece, —The Samnite war.—Philip victorious at Chæronea (Demosthenes). Darius III., Persian king.—Alexander king of Macedonia; expedition to Persia and India (victories on the Granicus, at Issus, Gaugamela).—Parthia, Bactria, Hyrcania, Sogdiana conquered.—Alexander in India (Porus).—Macedonian universal empire.—Aristotle.—Decline of the Macedonian empire; division after Alexander's death (governors: Perdiccas, Eumenes, Antigonus, Lysimachus, Ptolemy Lagus).—Wars between the successors of Alexander.—Liberty of the plebeians at Rome.—Empire of the Seleucidæ. Battle of Ipsus. Demetrius Phalereus in Athens.—Agathocles in Syracuse. Cassander in Macedonia. Pytheas discovers Thule.—Macedonian commerce with India through Egypt (Alexandria).—Alexandrian library; Pharos.—Appian way, aqueduct, baths in Rome.—Philosophical sects: Zeno; Pyrrho.

300 Alexandria and Antioch flourish.—Euclid; Theophrastus.—Colossus at Rhodes. Ptolemy Philadelphus, king of Egypt: museum, Septuagint; obelisk. Canal of Arsinoe; Manetho. Worship of Brahma on the Indus and Ganges.—Demetrius Poliorcetes.—Etolian and Achæan league.—Kingdoms of Pergamus, Bithynia, Pontus and Cappadocia.—Etruria conquered by the Romans.—Pyrrhus is victorious (chariots with scythes; fortified camps).—Roman commerce with Egypt.—Silver coin; gladiatorial games. Lower Italy conquered by the Romans.—First Punic war (Duilius; *columna rostrata*).—Partho-Persian empire.—Bactrian empire.—

250 Arsacidæ.—Sicily, Sardinia, Corsica conquered by the Romans.—Carthaginians in Spain (Hamilcar).—Germans.—Upper Italy conquered by the Romans.—Antiochus III. in Syria; Philip II. in Macedonia. Roman commercial intercourse with Greece.—Second Punic war (Hannibal victorious at Cannæ).—Marcellus captures Syracuse (Archimedes).—All Sicily conquered by the Romans. The Grecian treasures of art gradually carried to Rome (Golden age).—Flaminian way; gold coins; Fabius Pictor.—Scipio conquers Spain.—Hannibal defeated at Zama.—Egypt under Roman guardianship (Ptolemy Euergetes; Berenice). —Eratosthenes of Cyrene.—

200 Battle of Cynocephalæ; Flaminius, Roman general; Greece declared free—Polybius.—Hiong-Nou in the north-west of China (Teuman.)—Serica (China, conquered by Bactrians.—Victory of Magnesia; Syria tributary to Rome.—Victory of Pydna (Paulus Æmilius); Macedonia and Epirus conquered by the Romans. —Massinissa in Numidia.—Kingdom of Pontus; Mithridates I. (Parthian empire). — Pavement in Rome: Bacchanalia; sumptuary laws.—P. Cato (horticulture).—

150 Third Punic war; Carthage destroyed.—Corinth destroyed.—Roman universal empire.—Maccabees.—Commerce of the world centres at Alexandria.—Pergamus, a Roman province. Judæa free.—Wu-Ti in China. Chinese commerce with India and Persia.—Spain and Lusitania Roman provinces.—Fall of the Roman democracy (the Gracchi.) Oligarchy in Rome. —Jugurtha conquered.—Marius defeats the Teutones at Aquæ Sextiæ (Aix) and the Cimbri at Vercellæ (Vercelli).—The equestrian order in Rome becomes a distinct class.

100 Marius rules.—Struggle between Mithridates VII. of Pontus and Rome. Cyrene a Roman province.—Admission of the allies to the rights of citizenship. Sylla conquers Athens (fall of Greece); victorious over Marius.—Bithynia conquered by the Romans.—Canary islands (Fortunate islands) discovered. Sylla dictator. Mithridates conquered. (Battle of Nicopolis.)—Pontus and Syria Roman provinces.—The Indian era of Vikramaditya. Sacontala.—Sertorius in Spain; Spartacus in Lucania defeated.—Germans in the country of the Celts (Gauls); Ariovistus.—Confederacy of the Suevi. —Catiline, Cicero.—First triumvirate (Cæsar, Pompey, Crassus). Juba, king of Numidia. Cæsar in Gaul, Germany, and Britain.—Victory of the Parthians over Crassus at Carrhæ.—Battle of Pharsalia.—Pompey killed in Egypt.—Burning of the Alexandrian library.

50 Cæsar victorious at Thapsus; Numidia conquered by the Romans. Cato of Utica d.—Julian calendar (Jan. 1, 45). Cæsar d. 44.—Second triumvirate (Antony, Octavius, Lepidus).—Battle of Philippi. Brutus and Cassius kill themselves.—Parthians conquered. Noricum a Roman province.—

30 Victory at Actium. Antony d. in Egypt. Cæsar Augustus (Octavius) emperor.

Virgil, Horace, Dionysius of Halicarnassus.—Cantabria, Asturia, Rhætia, Vindelicia, Mœsia become Roman provinces.—Christ born.—Græcomania in Rome.—Worship of Isis there.—

Buddhism in Thibet, China, and Siam.—Marcomanni (Marobodnus).—Judæa Roman province.—Arminius defeats the Romans, and Germany is less influenced by Latin civilization than other countries. Tiberius, emperor. (Silver age.)—Drusus, Germanicus.—John the Baptist.—Roman military colonies on the Danube and on the Rhine. System of defence against the German tribes.—

A.D. Jesus Christ crucified.—Apostles.—Caligula, emperor.—
29 Claudius, emperor.—Prætorians.—Christians (Paul.)—Druids in Germany.—Mauritania a Roman province.—Thrace a Roman province.—Chermesci, Catti, Frisians, Batavi.—Vannius.

54 Nero, emperor.—Burning of Rome. Persecution of the Christians.—Worship of Fo in China.—Galba, Otho, Vitellius, emperors. Vespasian, emperor. Jerusalem taken—Claudius Civilis.—Titus, emperor.—Herculaneum, Pompeii, Stabiæ overwhelmed. Domitian, emperor. Conquest of Southern Britain (Agricola). Northern empire of the Huns in China destroyed.—Nerva, emperor. Goths, Suevi.—Trajan, emperor (*Forum Trajani*).—Ulpian library.—Dacia conquered (Trajan's pillar).—Teutones in Illyria.—

100 Armenia a Roman province.—Adrian, emperor.—Tarsen age.)—Adrian's tomb; Caledonian wall; baths of Agrippa.—Final destruction of Jerusalem.—Bactria conquered by the Chinese.—Gnostics in Africa.—Temple at Heliopolis.

150 Antoninus, emperor.—Shen-Pi in China.—Plague in Europe and Asia.—Saxons on the Elbe and Oder.—Marcus Aurelius, emperor. Antonine column. War between Rome and Parthia.—War against the Marcomanni and Quadi.—Commodus, emperor.—Peace with the Marcomanni.—Goths in Dacia. Runic writing.—Licentiousness of the prætorians.—Commerce between Europe and China.—Chinese catalogue of stars (Tchang-Hong).—Catholic church.—Talmud.—

200 Picts' wall.—Corea tributary to Japan.—Alemanni on the Maine.—Alexander Severus, emperor.—Fishery of Pelusium.—Eclectics.—Persia (Sassanides; Artaxerxes I., their founder).—

250 Confederacy of the Franks between the Elbe and Rhine. Odin in Scandinavia.—Huns on the Caspian sea.—Chiliasts.—New Platonists.—Thirty tyrants, Gallienus.—Alemannic confederacy.—Palmyra (Zenobia).—Aurelian, emperor. Loss of Dacia.—Palmyra in ruins.—Cultivation of the vine on the Rhine.—Monks in Syria and Egypt.—Manes and the Manichæans.—Ossian.—Probus, emperor.—Diocletian, emperor, division of the imperial power. Era of martyrs, Aug. 29.—Saxons and Franks in Britain.

300 Constantine I., Cæsar in Gaul.—Sapor II., Persian king, conqueror.—Yuen-Ti in China.—Constantine converted to Christianity.—Prohibition of murders.—Donatists in Africa.—Indiction of 15 years.—Council of Alexandria.—Corruptions of Christianity (ceremonies).—Constantine I., sole emperor.—Arius and the Arians. Council of Nice.—Vandals in Pannonia.—Christianity in Abyssinia. Byzantium (Constantinople), imperial residence.—Division of the empire (Constantine II., Constantius, Constans). Monasteries in the Thebais.—Picts and Scots.

350 Constantius, sole emperor.—Paris, Salian Franks.—Pilgrimages to the holy sepulchre.—Julian, emperor.—Wars with the Persians.—Valentinian in Rome, Valens in Constantinople.—Ostrogoths.—Visigoths.—Beginning of the great emigration of nations.—The Huns pass the Don.—Theodosius in Constantinople. (Iron age.)—Ecclesiastical tribunal at Saragossa.—Council of Constantinople.—(Theodosius, sole emperor after the conquest of Italy.)—Egypt annexed to the Byzantine empire.—Persecution of the pagans.—Division: Eastern empire, Western (Arcadius, Honorius) —Visigoths in Greece (Alaric).—Yezdegerd I., Persian king.—Image worship among Christians. Beginning of the Christian hierarchy.—

400 Emigration of the Germanic tribes. (Rhadagais, Alaric, Hermanric, Ataulphus, or Adolphus). Visigothic kingdom in Gaul and Spain.—Varanes V., in Persia. The German a written language.—Franks pass the Rhine.—The Romans withdraw from Britain.—Armenia taken by the Persians. Pelagians in Africa.—Attila: empire of the Huns from China to Gaul.—Saxons in Britain.—Vandals in Africa.—Christian colonies in Persia.—Maps (Agathodæmon).—Poets in the Eastern empire.—

450 Battle of Chalons.—Merovæus, king of the Franks.—Attila d.; decline of the empire of the Huns.—Kingdom of the Gepidæ on the Theiss.—Kingdom of the Burgundians.—Ostrogoths in Pannonia (Theodoric).—Simon Stylites;—Moses of Chorene.—Massacre (Persia).—Euric, king of the Visigoths (laws).—Romans expelled from Spain.

476 Revolt of the foreign soldiers in Italy (Heruli, Rugii, &c.) Under Odoacer.—Odoacer, king of Italy.

End of the Western Empire. Beginning of the Middle Ages.

486 Kingdom of the Franks in Gaul (Clovis) after the battle
et seq. of Soissons.—Arthur, British prince.—Italy conquered by the Ostrogoths (Theodoric).—Kingdom of the Czechs in Bohemum; the Boiemi retire to the Danube.

500 Clovis victorious against the Alemanni and Visigoths.—Benedict of Norcia (Monastic rules, 529.)—Wu-Ti in China.—(Commerce with Ceylon.)—Cosmas, the Egyptian navigator to India.—Justinian, emperor of Byzantium; Roman code (civil law).—Angles in Britain.—Frankish dominion over Thuringia, Burgundy, Bavaria, and Alemannia.—First monastic orders in Germany.—Dionysian era.—Institutions and [illegible]

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docta promulgated. Lombards in Pannonia.—Chosroes I. (Noushirvan), Persian king.—Destruction of the kingdom of the Vandals in Africa (Belisarius); North Africa, Sardinia, Corsica annexed to the Byzantine empire.
550 Turkish kingdom on the Irtish and around the Altai.—Narses puts an end to the kingdom of the Ostrogoths; Italy added to the Byzantine empire.—Clothaire, sole king of France.—Saxon Heptarchy in England.—The Gepidæ destroyed by the Lombards and Avars.—The Turks emigrate to the South (Chazars, Petshenegues, Uzans).—Kingdom of the Lombards in Upper Italy (Alboin); feudal government; feudal militia; dukes; duels.—Exarchate; monkish Latin.—Eastern and Western Turkish kingdoms.—Visigothic kingdom over all Spain (Leovigild).—Yang-Kien, conqueror in China.—Gregory I., Roman bishop—(Purgatory; mass)—Chosroes II., king of Persia.—Christianity introduced into England (St Austin).
600 Boniface III., universal bishop.—The pope supreme head of the church.—Byzantine conquests in Asia and North Africa.—Clothaire II., king of the Franks. (Mayors of the palace; fiefs hereditary; aristocratic class).—Wends in Carniola, Carinthia, and Stiria.—
622 Mohammed flies from Mecca (Hegira, Islam).—Arabia conquered, Persians defeated.—Caliphate (Abubeker, Omar, Osman).—Koran (635).—Saracens conquer Syria, Phœnicia, Palestine, Persia and Egypt.—Codes of the Visigoths and Lombards.—Normans (Iwar Widfame).—Sclavonians in Russia and Poland.—
650 Ali; Moawiah (Ommiades). Schism in Mohammedanism (Sunnites, Shiites).—Amrou; burning of books.—Pepin d'Heristal, duke of the Franks and hereditary mayor of the palace.—Tournaments among the Saracens.—Northern Africa reduced by the Saracens.—Saracens defeated before Constantinople (Greek fire).—Cairoan built (rice and sugar-cane in Egypt).—Chazars in Tauris; Danes in the Orkneys.—Christianity introduced into Friesland (Willebrod).—Tonsure.—
700 Saracens in Bucharia, Armenia, and Asia Minor.—Walid, caliph.—The Saracens (Mousa, Tarik) conquer Spain. Fall of the kingdom of the Visigoths (Roderic, Pelagio). Posts; tournaments; coins among the Saracens.—Arabico-Indian commerce.—Hiuen-Song, political organization of China.—Charles Martel; defeats the Saracens near Tours.—Masses for money; kissing of the pope's foot.—Conversion of Thuringia and Hesse (Boniface).—Abbey of Fulda. Metropolitan in Mentz.—Destruction of the Eastern Turkish kingdom by the Hoeites.
750 Abul-Abbas; dynasty of the Abbassides.—Childeric III. dethroned; end of the Merovingians.—Pepin, king of the Franks.—Danes on the English coasts.—Al Mansor, caliph (flourishing period of Arabian science and art).—Bishop Stephen III. receives the exarchate; ecclesiastical state: the pope a secular prince. (Anointment of the popes; patrician order in Rome.)—Separation of Spain from the caliphate (Abderhama).—
768 Charlemagne divides the empire of the Franks with his brother Carloman.
771 Charlemagne, sole king. Wars with the Saxons. Rome is conquered; kingdom of the Lombards conquered.—Invasion of China by the Tartars.—Continuation of the wars with the Saxons; (Irmensaule destroyed).—Tithes; Peter's pence; sacred music; cathedral and monastic schools.—*Missi regii*.—Fossa Carolina between the Danube and Rhine.—Haroun al Raschid, caliph.—Africa separated from the caliphate (Aglabites).—Kingdom of Moravia.
800 Charlemagne crowned at Rome. Frankish Roman empire. Saxons baptized. The Eyder the frontier.—General canons of Aix-la-Chapelle; collection of capitularies by Ansegisus.—Decline of the caliphate after Haroun's death.—Egbert of Wessex founds the English monarchy (828).—Kenneth II. in Scotland.—Government of the Eunuchs in China.—Polish kingdom (Piast). Ansgar, bishop of Hamburg (831).
843 Treaty of division at Verdun: Italy, France, Germany, three distinct kingdoms: the latter appears in history.—*Jus manuarium* (right of private warfare). German castles.—Markgraves in Thuringia.—Turkish guards of the caliphs.—
850 Mantchoos, Chazars, Varagians become known. Alfred, king of England.—Ruric, founder of the first Russian dynasty.—Kingdom of Denmark founded (Gorm), of Norway (Harold).—Expeditions of the Normans. Struggles of the Polovtzes, Petchenegues, Varagians (Russians), and Sclavonians.—Magyaric kingdom in Hungary.—Burgundian kingdom.—Anarchy in Italy. Lorraine annexed to Germany.—Discovery of the Faroe islands and of Iceland.—Isidorian decretals.—Cyril converts the Chazars.—Nicholas I. (first coronation of a pope).—German books (Otfried). Hereditary counts and dukes in France.—
900 Voyages of the Norwegians to Greenland, from whence they reach (995) the coast of America, the since lost Winland. Expeditions of the Magyars. They conquer Great Moravia.—Kingdom of the Kitans (naphtha fire used in their wars).—Conrad I., king of Germany; tournaments in Germany; cities built; toll on the Rhine.—The Danes seize on the crown of England.—Henry the Saxon, German king. Grand dignitaries of the empire; royal palatinates.—Kingdom of the Fatimites in Africa.—Truce with the Hungarians.—The Hungarians defeated at Merseburg (933).—Government of the emirs in Arabia.—Eastern Africa discovered by the Arabians and colonized.—Otho I., king of Germany (936.)
950 Otho, king of Italy. Defeat of the Hungarians on the Lechfield.—*Lingua Romana* a written language.—Otho, German emperor.—Mines in the Harts mountains.—Grants to the clergy.—Byzantine customs at the German court, influence on arts (Theophanis).—Christianity introduced into Hungary.—Wladimir I. the Great, prince of Kiev.—Greek church in Russia.—Hugh Capet, king of France.—Christianity introduced into Prussia (Proper); Adalbert.—Stephen I., king of Hungary.—Sultan Mahmoud (empire of the Ghaznevides).—
1000 Christianity in Sweden (Olaf Skautkonung). Massacre of the Danes in England (Sweyn). Canute II., king of Denmark and England.—The Druses on Lebanon.—Conrad II. (king of Germany, of the Franconian dynasty).—Truce of God.—Feudal system.—Russian code of laws (Yaroslaf). Sclavonic school at Novgorod; translation of Greek works into Sclavonic.—Kingdom of the Obotrites (Godeshalc);—Togrul-Beg, a Seljook prince of Chorasan (conquers Balk, Chowarezm, Irak-Adgemi).—Ferdousi, Avicenna.—
1050 Bagdad conquered by Togrul; kingdom of the Seljooks in Central Asia and Persia.—Pilgrimages to the holy sepulchre. School at Bagdad.—Normans in Italy (Robert Guiscard). Lombard commerce in Germany.—Wendish commerce in the ports of the Baltic.—William the Conqueror in England (battle of Hastings, 1066).—Normans in Sicily.—The Comneni in Constantinople.—Gregory VII. (Hildebrand), vicar of Christ. Papal power. Benedict X. assigns (1039) the election of the pope to the college of cardinals.—Genoa independent.—Medical school at Salerno.—Hospital at Montpellier. Tournaments in France.
1073 Saxon struggle for independence (Otho of Nordheim).—The fem-courts.—Celibacy.—Struggle for the investiture; law against simony; legates sent. Papal power the bond of the Christian world.—Henry IV. at Canossa.—Kingdom of Iconia (Soliman, 1074).—Turcoman state in Syria (Ortoc).—Kingdom of Bohemia (Wratislaus).—Age of the schoolmen.—The assassins in Syria and Persia.—Council of Clermont (Urban II., Peter the Hermit).—Icelandic Edda.—Feudal law in England. Doomsday book.
1096 First Crusade. Jerusalem taken by assault. (Godfrey of Bouillon).—Henry I., king of England.—
1110 Genoa a republic.—Dalai-Lama in Thibet.—*Charta libertatum* in England.—Second crusade.—Eastern and Western Seljookian kingdoms.—The commons acquire rights in Germany.—Communes and corporations in France.—Republics in Italy.—John II. (Comnenus) emperor of Byzantium.—
1118 Orders of the knights of St John and knights Templars at Jerusalem.—Concordate of Worms. (Papal ring and staff).—Council of the Lateran.—Kingdom of Mocavides in Eastern Africa.—Lothaire, German emperor by election.—Niudshi in Northern China.—Conrad III. of Hohenstaufen, German emperor. (Suabian emperors).—Abelard.—Stephen, king of England.
1150 Third crusade.—Frederic I., German emperor.—Magnetic needle known to the Arabians.—Henry II., king of England (house of Anjou, Plantagenets).—Denmark united (Waldemar I.).—Confederacy of Lombard cities.—Saladin, sultan of Egypt (Ayoubite Curds).—Magnetic needle known in Italy.—Ireland conquered by the English.—Saladin conquers Jerusalem.—Walachian-Bulgarian empire (Peter and Asan).—Livonia discovered by citizens of Bremen.—Fair at Leipsic (1157).—Mines of Freyburg discovered.—Berlin founded.—Spanish wool exported to England and France.—Flourishing period of the commerce of Northern Germany.—Provençal poetry.—
1190 Fourth crusade. (Richard I., Cœur de Lion, Philip Augustus of France, emperor Frederic).—
1191 Teutonic knights.—Capture of Ptolemais.—The Hohenstaufens in the Two Sicilies.
1195 Fifth crusade.—
1198 Pope Innocent III., sovereign of Rome.—Execution of heretics in Toulouse.
1200 Mohammed II., sultan in Chowaresm.
1204 The crusaders take Constantinople by assault (Latin empire: Baldwin I.).
1205 Dynasty of the Patans in Hindoostan (until 1413).
1206 Abouhafs in Tunis and Tripoli (until 1533).—The empires of Nice and Trebisond.—Genghis Khan founder of the empire of the Mongols (d. 1226)
1209 Crusade against the Albigenses (the sixth).
1213 James I. of Arragon (Conqueror.) England tributary to the pope (John Lackland).
1214 Battle of Bovines.
1215 *Magna Charta*.—The Mongols conquer China.—Transubstantiation and auricular confession; rosary.
1216 Order of the Dominicans.—Henry III. of England.
1217 Seventh crusade (Andrew II. of Hungary).
1218 Frederic II., emperor. Independence of Switzerland.
1222 Constitution of Hungary.
1223 Order of the Franciscans.
1224 Mongols in Russia.
1226 Louis IX. (Saint).
1227 Battle of Bornhoved.—Octay, great-khan of the Mongols.

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1228 Eighth Crusade (Frederic II).
1229 Inquisition at Toulouse.
1230 The Teutonic knights conquer all Prussia Proper (from 1230 to 1283).—
1232 Courts of the members of the German empire.—Fire-arms in China and India—Clocks in Egypt.
1234 Decretals of pope Gregory IX.—The Mongols conquer Northern China.
1235 Prohibition of private warfare at Mentz.
1238 Russia tributary to the Mongols. (Battle on the Voronez, won by Batu, khan of the Golden Horde).—Republic of Genoa.
1240 Ninth crusade (Thibaut).
1241 Mongols victorious at Liegnitz (Silesia).—Hanseatic League formed.
1245 Pope Innocent IV. enlarges the college of cardinals.—Kayuk, great-khan of the Mongols.
1246 Institution of the feast of *Corpus Christi*.
1247 League of the Rhenish cities.
1248 Last crusade (Louis IX.). The Swedes conquer the south-eastern part of Finland.
1249 Louis IX. takes Damietta.
1250 Manku, great-khan of the Mongols.—The Cossacks become known.—Baharite Mamelukes in Egypt (until 1382).
1252 Alexander Newsky.—Foundation of Stockholm (1254).
1255 First maritime code (*consolato del mare*).
1256 Order of the Augustines.—Mongol system of conscription in Russia.
1258 Hulaku conquers Bagdad (Mongol-Persian dynasty).
1259 Koblay or Kublai, great-khan of the Mongols.—Pekin founded (dynasty Yuen).—Suabian law.
1260 Michael VIII. (Palæologus), emperor of Nice.—Militia in Arragon.
1261 Michael VIII. recovers Constantinople. (New Greek empire of Byzantium).—Corporations in Italy.—Battle of Largs.—Norwegians defeated by Alexander III. of Scotland.
1264 German commercial tribunal in Novgorod.
1265 Deputies of towns and boroughs in the English parliament.—Sicily a papal fief (White Horse).—Battle of Evesham in England.
1266 Corporations and guilds in Italy.—Genoa trades to India.
1268 Conradin executed; House of Anjou in the two Sicilies.—Imperial cities, and imperial nobility in Germany.—Paper money in China.—Astronomical tables of Maraga (Nasir-Eddin).—Mongol syllabic writing (1269.)—Edward I. of England.
1273 Rodolph of Hapsburg, German emperor (d. 1291.)—Anatomical chair in Paris (John Pitard). Letters of nobility in France.
1278 Hereditary succession in Arragon and Catalonia. Ottocar of Bohemia defeated.—Alchemists and theosophists. Glass mirrors. Mohammedan religion in Malacca.—
1282 Sicilian Vespers.—Peter of Arragon, king.—
1283 Albert of Hapsburg duke of Austria.—Prussia conquered (Conrad von Thorberg).—Edward I. conquers Wales.—
1291 Capture of Acre (end of the crusades).—
1294 Pope Boniface VIII. (*bulla unigenitus*).
1295 First English House of Commons assembled.
1296 Edward attempts to annex Scotland to his English dominions.—Battles (1297) of Stirling, and (1298) Falkirk. Sir William Wallace.
1299 Osman I. Empire of the Ottomans in Asia Minor.
1302 Third estate (*biens états*) in France (deputies of cities); *bulla unam sanctam*.
1305 Clement V. (Avignon papal residence until 1378). Immorality of the papal court. Struggle between the secular powers and the papal authority more and more manifest. Wretched state of the Christian church, and call for a "reformation in its head and members."—Invasion of Scotland; Bruce crowned at Scone.
1307 Swiss confederacy. William Tell.
1308 Uri, Schwaitz, Unterwalden, form a confederacy for the deliverance of their country.—Icenium conquered by the Mongols.
1309 Three "colleges" of the empire at Spire.—Knights of the cross at Marienburg.—
1310 Knights of Rhodes.—Dante.—
1312 Abolition of the knights Templars (Philip the Fair.) Decretals of Clement.—Fire-arms in Spain.—Edward II.; Battle of Bannockburn (1314).—Independance of Scotland secured.—Louis of Bavaria, German king (battle of Mühldorf, 1322).—Battle on the Morgarten. Perpetual league of Brunnen (1315).—Constitution of pope John XXII. (reservation).—Union of Arragon, Catalonia, Valencia (1319).—Great and Little Poland united (Wladislaus Lokietek).—Philip VI., house of Valois in France.—Orchan, Padishah; Ottoman Porte in Prusa (1326).—Restraints on the aristocracy of the German nobility at Spire. Foundation of the German communes.—Treaty of Pavia. Palatinate and Bavarian lines. Master singers their imperial charter, 1377.—German Levantine commerce flourishes.—Organization of Poland. Casimir III. (1333).—Battle of Halidon Hill.—Edward III. begins the wars for the French crown.—Gunpowder invented 1340 by Swartz a monk of Cologne.—Oil painting by John Van Eyk.—Louis I., king of Hungary (1342).—Re-discovery of the Canary Islands 1344. Flourishing period of the Venetian Levantine commerce (consuls in Aleppo and Alexandria).—Bank of circulation in Genoa.—Charles IV. (elected at Rhense, in 1346).—Battle of Cressy.—Pseudo-Waldemar in Brandenburg (1347).—Black death rages.
1350 Trials of witches.—Licentiousness of the clergy.—Imperial law; juridical commentators.—Revolutions in China.
1353 Lucerne, Zurich, Glarus, Zug, Berne, join the Swiss confederacy.—Bills of exchange (1354).—Solimen crosses the Hellespont (1355); Turks in Europe.—
1356 Golden bull.—Victory of the Black Prince at Poitiers.—(Peace of Bretigny, 1360).—Peter the Cruel, king of Portugal (1357).—Fire-arms in Brabant.—Adrianople, residence of the Porte, Amurath I. (1360).—Pope Urban V.; triple crown of the pope (1362).—Jamures (Sheikh Bekitash) (1362).—Expulsion of the Mongols from China.—New Burgundian house (Philip the Bold).—Tyrol conquered by the Austrians.—Hanseatic league flourishing (1364).—Timour (Tamerlane), great-khan of Dschagatay (1369).—The Stuarts born to reign in Scotland.—The Ottomans conquer the Walacho-Bulgarian kingdom (1374).—League of the Suabian cities (1376—1389).—Schism of the church. Papal courts of Rome and Avignon (from 1378 to 1417). —Wickliffe, Gower.—Timour conquers Caslgar, Chowaresm, Chorasan and Persia (from 1372 to 1384). —Wat Tyler and Jack Straw's insurrection in England (1381).—Bills of exchange used by the English.—Cannon employed at Calais (1383).—Dynasty of the Yagellons in Poland (from 1386 to 1572); Lithuania.—Battle of Sempach (Arnold Winkelried, 1386).—Bajazet I., sultan (1389).—Battle at Falkoping.—Battle of Nicopolis (1396, between Bajazet and Sigismund of Hungary).—Timour in Bagdad, Teflis, Moscow, and Delhi.
1397 Scandinavian union at Calmar; Margaret.—Richard II. deposed; Henry IV. of Lancaster.
1400 Huss preaches in Cracow.—Timour victorious over Bajazet at Ancyra (1402).—Hungarian insurrection established. Deputies of cities in Buda (Magnates and estates).—The Portuguese double cape Bojador.—James I. king of Scotland (1406).—Mohammed I, sultan (1413).—Henry V. of England.
1414 Council of Constance (until 1418).—Huss burnt (Hussites).—English invasion of France (battle of Agincourt).—The electorate of Brandenburg given to Frederic of Hohenzollern (1415).—Henry the Navigator.—Porto-Santo and Madeira discovered.—War of the Hussites (John Ziska) (1415).—Amurath II., sultan. —Henry VI. of England; siege of Orleans raised (Joan of Arc) (1429).—Council of Basle (1431 to 1443). Florence under the Medici. Cosmo (1434).—Chancery fl.—
1436 Art of Printing (John Guttenberg).—
1440 Frederic III., Austrian dynasty on the imperial throne of Germany.—Posts are established.—Scanderbeg in Albania (Epirus) (1443—1468).—Battle of Varna (1444). Battle of St James on the Birs.—Standing army in France, Uniform (1445).—Pope Nicholas V. (classical literature in Rome; Vatican library) (1447).—Western Africa discovered by the Portuguese.—Concordats at Rome and Vienna with the German nation.—House of Oldenburg in Denmark: Christian I.—The English expelled France.—War of the Roses in England (York and Lancaster) (1452—1485).—Mohammed II., sultan.—
1453 Constantinople conquered by the Turks (Constantine XIII., the last of the Palæologi, dies at the gates of Constantinople, with arms in his hand). End of the Eastern empire. Revival of learning in Europe by the fugitives from Constantinople.—Sale of papal indulgences.—Bohemian Brethren (1457).—Cape de Verde islands discovered (Cada Mosto). Louis XI. of France.
1462 Ivan Basilowitz, founder of the greatness of Russia.—Peace of Thorn (division of the territories of the Teutonic knights).—Charles the Bold of Burgundy.—New kingdom of the Turcomans in Persia (Usun-Hassan). —Steno Sture, administrator of Sweden.—Sale of indulgences renewed.—The Portuguese pass the equator.—Victories of the Swiss over Charles of Burgundy at Granson and Morat (1476).—Extension of the art of printing (book-privileges; catalogues).—Mails on horseback in France.—Standing army in Hungary.—Pedal harpsichord. Notes in music.
1477 Charles the Bold falls at Nancy; Burgundy comes into the possession of Austria (Maximilian and Mary).—End of the Tartar dominion in Russia. Ivan Basilowitz conquers Novgorod. (Decline of the Hanseatic commerce with Russia.)—Castile and Arragon united (Ferdinand and Isabella). Inquisition in Spain, 1481. —Richard III; battle of Bosworth. House of Tudor in England (Henry VII.) Union of York and Lancaster.—James IV. king of Scotland (1488).—Russian power firmly established in Western Europe. Decline of feudal power.—Discovery of the cape of Good Hope by Diaz.—The Moors expelled from Granada (1491).
1492 Discovery of America (Columbus). Maps. Conrad Sweynheim.—Powder mines (Navarre).—Terrestrial globes (Martin Behaim). Papal demarcations of the Portuguese and Spanish discoveries.—Algebra through the Arabians. Book-keeping by double entry.—Venereal disease introduced into Europe.

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1495 Peace of the empire at Worms. Private warfare abolished.—European balance of power.—North America discovered by the Cabots.—Discovery of the passage to the East Indies (1498, Vasco de Gama).—Louis XII. of France.—Inquisition in Seville.

1500 Discovery of Brazil (Cabral).—Change in the direction of commerce, which becomes a more important element of politics.—Reign of the Sophi in Persia (Ishmael Shah) 1502).—Slave trade.—Continuation of the discoveries and conquests of the Spaniards and Portuguese in Africa and America.—League of Cambray.—Thirteen Swiss cantons confederated.—Henry VIII. of England.—Pope Leo X. St Peter's church.—Flourishing period of the fine arts (1513) (Michael Angelo, Correggio, Titian, Leonardo da Vinci).—Savonarola and the Mystics.—Francis I., king of France (Expedition over the Alps; battle of Marignano, 1515).—Charles I. (V.) king of Spain.—Watches invented in Nuremberg; air guns.—Posts in Germany (1506).—Battle of Flodden field (1513).—James IV. slain.

1517 The abuse of indulgences, and the licentiousness of the clergy, bring on the reformation.—Luther in Wittenberg.—Zuinglius teaches in Switzerland.—The Ottomans conquer Egypt.

1519 Charles V., German emperor. Elective capitulation.—The Sherifs become kings of Morocco.—Cortes discovers Mexico.

End of the Middle Ages; beginning of Modern History.

1519 At no period were more distinguished monarchs seated at the same time upon the thrones of Europe, than at the beginning of modern history: Charles V., Francis I., Henry VIII., Leo X., Emanuel of Portugal, Soliman II., Sigismund I., and Ivan II.—Massacre at Stockholm (Christian, 1520).—First war between France and Spain (1521—1526).—Edict of Worms.—Anabaptists.—Conquests of Albuquerque in the East Indies, Malacca and the Indian islands. Magellan circumnavigates the world, but Cano alone returns with one vessel to Spain.—The Turks conquer Rhodes (first use of bombs).—Knights of St John at Malta.

1522 Abolition of the union of Calmar; Gustavus Vasa.—Swiss religious divisions.—War of the peasants in Germany. Thomas Munzer.—Dispute respecting the Lord's supper. Reformed or Calvinistic church.—Attempts of the Spaniards to discover a north-west passage.—Empire of the descendants of Timour in India (sultan Babur).—Battle of Pavia (1525).—Hungary and Bohemia fall to Ferdinand of Austria (1526).—Lutheranism in Sweden and Denmark.—Second war between Spain and France (from 1527 to 1529) Peace of Cambray.—Augsburg confession (Melanchthon.)—Smalcaldic league.—Post-offices in England.—Conquest of Peru (Pizarro) (1532).—Papal power abolished in England (1533).—Union of Denmark and Norway.—Ivan II., czar of all Russia (1533).—Britanny annexed to France.—Anabaptists in Munster (John of Leyden, 1534).—Third war between France and Spain (1535—1538).—Conquest of Chile and Guatemala.—Wales annexed to England.—Mennonites.—Roman school of painters (Raphael), German (Albert Durer).—The Bible printed in English; monasteries suppressed in England.

1540 Jesuits. (Ignatius Loyola).—Continuation of the discoveries and conquests of the Portuguese and Spaniards in Asia, Africa, and America.—Fourth war between Spain and France (from 1542 to 1544).—Copernicus (died 1543).—Peace of Crespy (1544).

1545 Smalcaldic religious war. Maurice of Saxony elector (1548). Imperial interim of Augsburg.—New French war (Henry II.) from 1552 to 1556.—Edward VI. of England.—The English discover the passage by sea to Archangel (Richard Chancellor); decline of the Hanse.—Mary of England.—Kasan and Astrachan Russian provinces (1552 and 1554).

1555 Religious peace of Augsburg (Protestantism tolerated). Philip II. king of Spain (abdication of Charles V.) (1555).—War between Spain and France (from 1557 to 1559). Parma's victory at St Quentin).—Elizabeth, queen of England (1558).—Factions in France (Guises and Bourbons).—Religious struggles in France.—Renewal of the council of Trent (1562).—War between Sweden and Denmark (from 1563 to 1570).—Marriage of Mary Queen of Scots to Lord Darnley (1565). Murder of Lord Darnley.—Resignation of Mary.—Murray appointed Regent of Scotland (1567).—Battle of Langside (1568).—Murray assassinated (1569).—Insurrection of the Low Countries against Spain (Gueux) (1566).—Attempts of the English to discover a north-west passage (Frobisher). — Jermac Timofejew shows the Russians the way to Siberia.—Inquisition in Spanish America.—Test act (1572).—Poland an elective monarchy; extinction of the house of Yagellon. Massacre of St Bartholomew's at Paris (1572), peace of Rochelle (1573).—Stephen Bathori king of Poland (Cossacks).—The League of the Catholics (Henry Guise).—Sir Francis Drake circumnavigates the world, and re-discovers West Greenland.—Sebastian of Portugal is reported to have fallen in the battle of Alcazar; with him and his uncle Henry the dynasty of Aviz becomes extinct, and the greatness of Portugal ends (1578).

1579 Union of Utrecht; confederation of the United Provinces (William of Orange).—Commerce of Holland and Hamburg (after the decline of the commerce of Antwerp and the Rhenish cities).—Portugal is conquered by Spain (Alva) (1581).—Pope Sixtus V. (1585).—League of the seven Catholic Swiss cantons at Lucerne (1584).—Raleigh discovers Virginia; first English attempts at colonization in N. America.—Mary Stuart beheaded (1587).—Destruction of the Spanish armada (1588).—Henry IV.; house of Bourbon in France (1589).—States-General in Holland.—Edict of Nantes; Sully (1598).—Touran annexed to Russia.—Gregorian calendar (Oct. 5, 1582).—Construction of highways in France. Peace of Vervins (1598); decline of Spanish greatness.—Philip II. d. 1598.—

1600 English East India company.—James I.; house of Stuart on the English throne (1603).—Charles IX., hereditary king of Sweden (1604).—Gunpowder plot (1605).—Union of Heidelberg.—Truce of Antwerp; independence of Holland acknowledged (1609).—Expulsion of the Moors from Spain.—First permanent settlement in North America by the English; Jamestown, 1607.—Extension of the Dutch settlements in Africa and Asia, at the expense of Portugal.—New York discovered by the Dutch (1609); New Netherlands.—Henry IV. conceives the plan of a European confederation; murdered by Ravaillac (1610). Louis XIII., king of France.—Catholic league in Germany.—The telescope invented.—Gustavus Adolphus, the great king of Sweden (1611).—Hudson discovers the bay called after him (1607).—Quebec founded (1608); permanent French colony in Canada.

1613 Michael Fedorowitz, czar of Russia (house of Romanoff).—Logarithms invented (1614).—Swedish-Polish war; Livonia annexed to Sweden (from 1617 to 1629).

1618 Insurrection of the Utraquists in Prague.—Thirty years' war.—

1619 Synod of Dort.—Ferdinand II., German emperor.—Whigs and tories.—Settlement of New England (1620).—War between Spain and Holland (1621—1648).—Battle at the White mountain; Frederic elector palatine abandons Bohemia (1620), and is put under the ban of the empire. Bavaria receives the palatinate.—Richelieu in France (1624—1642).—Danish war (1625—1629).—Charles I. of England.—Bacon d. (1626). War for the inheritance of Mantua (1627—1631).—Capture of Rochelle (subjection of the Huguenots).—Petition of rights (1628).—Edict of restitution (1629).—Gustavus Adolphus lands on the island of Rugen.—(Battles of Leipsic, Lutzen, Nordlingen).—War between France and Spain (1635—1659). Peace of Prague.—Maryland settled (1634).—The Scottish covenanters take arms in defence of presbytery (1639).

1640 Portugal independent; house of Braganza.—Long parliament (1640—1653). Power of the house of commons; Independents.—Civil war in England begins.—War between Denmark and Sweden (1644—1645).—

1644 Mantchoos in China.—Battle of Marston Moor.—

1648 Peace of Westphalia. Sweden powerful in the North, France in the West; Germany broken.—Fronde in France.

1649 Charles I. beheaded. English commonwealth. Oliver Cromwell.

1651 Louis XIV., king of France (Mazarin).—Navigation act.—War between England and Holland (1652 to 1654).—

1653 Cromwell lord protector of England. — Charles X. House of Deux-Ponts on the Swedish throne.—Peace of Westminster.—War between Sweden and Poland (1655—1660).—War between England and Spain (1656—1658).—

1657 Treaty at Wehlau; Prussia a sovereign power (Frederic William, elector since 1640).—War between Sweden and Denmark (1657—1660).—

1659 Peace of the Pyrenees.—Aureng-Zebe.

1660 Restoration of the Stuarts (Charles II.).—Revolution in Denmark; Frederic III.; hereditary monarchy.

1661 Louis XIV. assumes the government.—Growth of the British and French power in America.

Paris, the centre of literature and taste. Golden age of France. Louis XIV. concentrates the powers of the government in himself, and begins a course which results in the revolution.—War between Hungary and Turkey (from 1661 to 1664).

1663 Permanent diet at Ratisbon.—War between England and Holland (1664 to 1667).—New York taken by the English.—War between France and Spain for the devolution of Flanders (1667 to 1668).—Triple alliance against France.—Decline of Persia (Soliman Shah).—Turks conquer Candia (Kiuprili).—Cabal ministry in England.—Mercantile system.—War between France and Holland (1672—1678). Restoration of the hereditary stadtholdership (William III. of Orange).—First settlement of S. Carolina (Port Royal, 1670). War between Sweden and Prussia (1674—1679).—Peace of Nimeguen (1678).—Peace of St Germain and Fontainebleau (1679).—William Dampier's voyage round the world (1679—1695).—Quakers in Pennsylvania (William Penn) (1682).—Propositions of the Gallican church.—War between Turkey and Hungary (1683—1699).—Relief of Vienna (Sobiesky).—James II. of England.—Revocation of the edict of Nantes (1685); emigrations of Protestants (*Refugies*); French fashions, language and industry in Germany and England.—Dragoonades.—Crown of Hungary here-

A. D. | ditary in the house of Austria. War between France and Germany (1688–1697).—First German periodical (Thomasius).—English revolution.—
1689 | James II. abdicates (William III. of Orange and Mary proclaimed).—Bill of rights.—Peter I. czar and autocrat of Russia.—British funding system (national debt).—Continental connexions of England. Battle of the Boyne (1690).—Hanoverian electorate (the 9th).—Massacre of Glencoe (1692).
1697 | Peace of Ryswick.—Charles XII. of Sweden.—Battle of Zentha (Eugene of Savoy). Last attack of the Turks against the Christians of the West.—Augustus II. of Poland.
1698 | Treaty of partition of the Spanish monarchy; the elector of Bavaria intended king of Spain.
1699 | Death of the elector of Bavaria; the testament of Portocarrero gives the Spanish succession to the house of Anjou.—Peace at Carlowitz; the Turks cede Transylvania and Sclavonia to Austria, Morea to Venice.—Christian V. of Denmark d.; Frederic IV., king.—Scotch Darien expedition.
1700 | Northern war of Poland, Russia, and Denmark, against Sweden.—Charles II. of Spain d. (Austrian dynasty extinct on the throne of Spain).—Philip V. of Anjou, king of Spain (Bourbon dynasty).—Peace of Travendahl. Battle of Narva.
1701 | Prussia a kingdom; Frederic I.—War of the Spanish succession.—Act of settlement.—Eugene goes to Italy. (Battles of Chiari and Capri).
1702 | Louis XIV. acknowledges James II. as king of England; the maritime powers take part with Austria.—William III. of England d.; Anne, queen.—
1703 | Peter III. of Portugal joins the alliance with Austria; Charles III. of Spain and Sardinia becomes the ally of Austria.—Dampier's second voyage round the world (1703 to 1706).—The Methuen treaty.
1704 | Battles of Schellenberg and Blenheim (Eugene and Marlborough).—Charles III. goes to Spain; the English take Gibraltar.—Charles XII. of Sweden causes Stanislaus Leczinsky to be elected king of Poland, and drives the Saxons from Poland.—Locke d.
1705 | Coburn d.—Joseph I., emperor.
1706 | Charles III. goes to Spain; Barcelona taken. The Austrians masters of Italy through Eugene.—Victory of Ramillies.—Peace of Altranstadt; Augustus II. renounces the crown of Poland. Patkul sacrificed to the king of Sweden.
1707 | Union of England and Scotland. Parliament of Great Britain.—Continuation of the war in Spain (Berwick victorious at Almanza).—Aureng-Zebe, the greatest Mongol ruler of Hindoostan, d. The Seiks and Mahrattas shake the empire of his successors.—Vauban d.
1708 | Battle of Oudenarde; Lisle taken.—Union of the English East India companies.—Dampier's and Woods Rogers's voyage round the world (1708–11).
1709 | The emperor enters Mantua; victory of Malplaquet. Eugene, Marlborough and Heinsius dictators; France exhausted.—Battle of Pultawa. Preponderance of Sweden in the North ends; superiority of Russia. Charles XII. takes refuge among the Turks.—Stereotype printing in Leyden.
1710 | The duchess of Marlborough's gloves overthrow the whigs in England.—Vendome captures Madrid.
1711 | War between Russia and Turkey; the peace of the Pruth saves Peter's army.—The senate supreme tribunal in Russia.
1712 | The German provinces of Sweden conquered.—A French colony in Mauritius.—The crown prince of Saxony becomes Catholic.
1713 | Peace of Utrecht (Great Britain receives Arcadia, Hudson's Bay, and Newfoundland; Portugal, the countries from Cape North to the Maranon; Prussia, Guelderland for Orange; Sardinia, Sicily; and the summits of the Alps become the frontiers of France; Holland receives the *Barriers* in the Netherlands; Spain gives up Gibraltar and Minorca, and accedes to the Assiento treaty).—Steenbock surrenders with his army. Charles XII. returns from Bender to Sweden.—Clement XI. Constitution; *Unigenitus* (against the Jansenists).—French colony of cape Breton.—Perpetual league of the Catholic cantons with France.—Frederic William I. of Prussia reforms the kingdom.
1714 | Peace of Rastadt. Austria receives Lombardy, Naples, and Sardinia, and the Spanish Netherlands, with the barriers.—Queen Anne of England d. George I., elector of Hanover, ascends the British throne. Whigs again in power.—Fall of the princess Orsini.
1715 | The Turks take the Morea from the Venetians.—Inoculation for the small-pox at Oxford. Battles of Sheriffmuir and Preston.—Barrier treaty of the Dutch with Austria.—Louis XIV. d.; his grandson Louis XV. king, under the guardianship of Orleans.—Plan of Alberoni.—The stadtholdership in Holland gradually declines.—Mercurial thermometer (Fahrenheit).
1716 | War between Turkey and Austria. Battle of Peterwardin.—Septennial parliaments in Great Britain.—Leibnitz d.
1717 | Triple alliance between Great Britain, France, and Holland. Sardinia given by the maritime powers to Austria instead of Sicily.—Eugene takes Belgrade.—John Law and the Mississippi scheme.—Scotch free-masonry, piano-fortes, and potatoes in the north of Germany.
1718 | Peace of Passarowitz, by which the Turks retain the Morea, but cede the Bannat, Servia, and part of Bosnia, to Austria.—Alexis, heir apparent of Peter, put to death.
1719 | Charles XII. killed before Frederickshall.—Ulrica Eleonora confers the crown of Sweden on her husband Frederic of Hesse-Cassel.
1720 | Goertz beheaded.—Alberoni exiled from Spain, and this power obliged to conclude peace.—France bankrupt; Law leaves France.
1721 | Peace of Nystadt, which leaves Sweden only a part of Pomerania and Wismar in Germany.—Treaty of Madrid, between Spain and France and the maritime powers.—Peter I. emperor; abolition of the patriarchate in Russia, and foundation of the holy synod.—Walpole in England.—James Roggewein's voyage round the world (1721–1722).
1722 | Pragmatic sanction.—Ostend company.—Russia law of succession.—Mahmoud on the throne of Persia (1st Afghan dynasty).
1723 | Louis XV. of age; cardinal Dubois, the Duke of Orleans, and, finally, Bourbon, his ministers.—Enlistment of foreigners common in Europe.—Peter the Great receives the Persian provinces Dhagestan, Shirvan, Ghilan, with the cities of Baku and Derbend.
1724 | Philip V. of Spain resigns his crown to his son Louis, but resumes it after the death of the latter.
1725 | Peter the Great d.; his wife, Catharine I., empress. Mensikoff.—Marriage of Louis XV. with the daughter of Stanislaus Leczinsky; the Infanta, six years old, sent back.—Division in the French church on account of the bull *Unigenitus* and the Jansenists.
1726 | Cardinal de Fleury prime minister; France regains her influence in Europe.
1727 | Catharine I. d.; Peter II. emperor of Russia.—Fall of Mensikoff; Dolgorucki.—Frontier treaty between Russia and China.—George II. king of Great Britain.—Newton d.
1728 | Gold mines of Brazil discovered.—Afghans expelled from Ispahan.—Moravians (Zinzendorf).
1729 | Peace of Seville.
1730 | Peter II. d.; Anna empress.—Fleury decides the exclusion of the Jansenists and of the bull *Unigenitus*; resistance of the parliament.
1731 | English colony in Honduras.—Treaties of Vienna.
1732 | Orange treaty of succession.
1733 | War for the Polish crown. The French invade Germany and Italy.—Georgia settled.
1734 | Russia and Austria give the Polish crown to Augustus III.—Battles of Parma and Guastalla.
1735 | Preliminaries of Vienna (Augustus remains king of Poland. Stanislaus receives Lorraine during his life, after which it reverts to France. Francis Stephen indemnified by Tuscany. Don Carlos king of the Two Sicilies. Parma and Piacenza remain Austrian).—Kien-Long emperor of China.—Turks beaten by the Persians.
1736 | War of Russia and Austria against the Turks; Munich.—Marriage of Maria Theresa of Austria with Francis Stephen of Tuscany.—Kouli Khan ascends the throne of the Sophis (whose race he extirpates), under the name of Schah Nadir.—Theodore Neuhof, king of Corsica.—Eugene of Savoy d.
1737 | The house of Medici becomes extinct; Tuscany comes into the possession of the duke of Lorraine.
1738 | The Russians discover Tschoukotakia.—Solar microscope of Lieberkuhn.—Vaucanson's automata.—Herculaneum and Pompeii discovered.
1739 | Peace of Belgrade, by which Servia, Little Wallachia, Orsova, and Bosnia are restored to the Turks.—Negotiations at the Pardo.—War between Spain and England. Admiral Vernon takes Porto Bello.—Schah Nadir conquers Hindoostan, and carries away the treasures of the Great Moguls. Fall of the empire of the Great Moguls, and division among the governors. Delhi alone remains to the descendants of Baber.
1740 | Maria Theresa ascends the throne of the Austrian hereditary states, according to the pragmatic sanction, after the death of Charles VI.—Frederic the Great (of Prussia) invades Silesia.—Anne of Russia d.; Ivan VI. emperor; Biron rules.
1741 | France declares for the elector of Bavaria, who claims the Austrian states. The maritime powers and Sardinia for Austria.—Ivan IV. dethroned; Elizabeth empress.—Behring and Tschirikof's voyage; the Aleutian islands discovered.
1742 | Silesia and Glatz ceded to Prussia.
1743 | Cardinal de Fleury d.—Austria successful against Charles of Bavaria, German emperor.—Peace of Abo.
1744 | English naval successes over the French. The former rule on the Mediterranean.
1745 | Charles VII. (of Bavaria) d., Francis Stephen, husband of Maria Theresa, becomes German emperor. Second Silesian war concluded by the peace of Dresden, and Silesia remains in the hands of Prussia.—Prince Charles Edward lands in Scotland, is victorious at Prestonpans, and enters England.—The New Englanders take Louisburg and Cape Breton.
1746 | Cumberland defeats the Pretender at Culloden.—Great earthquake in Lima.
1747 | The prince of Orange again at the head of the government, as stadtholder.—The French successful in the Netherlands, and unsuccessful in Italy.—Schah Nadir d., and internal troubles distract the Persian empire.
1748 | Peace of Aix-la-Chapelle ends the war of the Austrian

A. D. succession (Maria Theresa retains her hereditary estates with the exception of Parma, given to don Philip, and part of Milan annexed to Sardinia; England restores Cape Breton, France Madras. The Assiento treaty remains in force for four years longer).—Bestuscheff's uncontrolled power in Russia (until 1757).—The Waldenses in Savoy.

1749 Halifax founded in Nova Scotia (indirect cause of the seven years' war).—Witches executed in Wurzburg.—Empire of Afghanistan (Ahmed Abdalli).

1750 Joseph Emanuel, king of Portugal; Pombal minister.—Jaghire comes into the possession of the English East India company.—Discovery of the Russian Northern Archipelago (Andreanovian islands).—Mulhar Rao Holcar founds a Mahratta state in Malwah and Guzerat.—Frontier treaty at Buen-Retiro respecting the conquests in South America.

1751 Adolphus Frederic, king of Sweden (house of Holstein).—French *Encyclopedie* (D'Alembert, Diderot).—The Dovas in Northern Annam seize the government and expel the Chuas.

1752 Doctrine of electricity.—Physiocratic system.—Lightning rods (Franklin).—The Peguans subject the empire of Birmah.—The new style introduced into Great Britain, September 3.

1753 Spanish concordate with the pope.—The inquisition becomes less bloody.—Exile of the parliament of Paris.—Alompra, a Birman, delivers his country from the Peguans, and appears as a great conqueror. By the peace of Calberga (Hindoostan), France receives the four Northern Circars.

1754 Richard Wall, Spanish minister.—Paoli chief in Corsica.—Beginnings of the war between the French and English in America; acts of violence on the Ohio.—Washington takes a party of French.—Wolf d.—Quakers in North America abolish the slave trade.

1755 Naval and colonial war between England and France (until 1762).—Defeat of Braddock at fort Duquesne.—Earthquake in Lisbon.

1756 Pitt (Chatham) at the head of the ministry (until 1761).—Violations of the rights of neutrals by the English.—Conquest of Minorca.—Third Silesian or seven years' war.—Alompra conquers Pegu.—The army of the Jesuits beaten by Spaniards and Portuguese, and the order expelled from Paraguay. Black hole of Calcutta.

1757 Frederic the Great victorious at Prague, Rosbach, and Leuthen; defeated at Kollin. Conquest of the twenty-four Pergunahs by the British East India company.

1758 Jesuits expelled from Portugal, on suspicion of attempting the life of the king. Union of Versailles, (Choiseul and Stahremberg). The Dutch subdue the two chief sovereigns of Java. Victory of the English at Plassey (Hindoostan); conquest of Goree (West Africa), and Cape Breton (North America).

1759 Ferdinand VI. king of Spain d.; Charles III. of Sicily ascends the throne, and gives the crown of the Two Sicilies to his son Ferdinand.—The British take Guadaloupe and Quebec; Hawke destroys the French fleet off Belleisle.—British empire in India firmly established by the capture of Surat.

1760 Canada falls into the hands of the British.—George II. d.; George III. king.—Discovery of the island Kodiak.—Famine in Bengal.—Alompra, founder of Birman greatness, d.; the throne remains in his dynasty.—Hyder Ali founds the kingdom of Mysore.

1761 Chatham succeeded in the ministry by Bute.—Dupleix and the French lose their influence in the East Indies.—Bourbon family compact.

1762 Spain declares war against England; Rodney takes Martinique, Pocock, and Keppel Havana, in the Indian ocean Manilla; Spain attacks Portugal without success.—Empress Elizabeth d.; Peter III. declares for Frederic II., but Catharine II. ascends the throne, and Peter d.

1763 Peace of Paris terminates the naval war (Great Britain receives Canada, Nova Scotia, Cape Breton, Senegal, with Tobago and other West India islands; Spain cedes the Floridas to Britain, and St Sagramento to Portugal). England mistress of the seas.—The seven years' war concluded by the peace of Hubertsburg, based on the *statu quo*.—Principle of the European balance of power.—Resignation of Bute.—Grenville ministry.

1764 Abolition of the Jesuits in France. Stanislaus Poniatowsky elected king of Poland. Disturbances in Poland, on account of the Dissidents.—Russians occupy the island St Laurence.—Jesuits expelled from France. John Byron's circumnavigation of the world (1764—1766).

1765 Joseph II., emperor of Germany and co-regent of Austria, with his mother; his brother Leopold receives Tuscany.—Stamp act; opposition in the colonies; Virginia resolutions; colonial congress at New York; non-importation agreements.—The English dethrone the nabob of Bengal, and annex Bengal, Bahar, and the Circars to their territory.—Ali Bey makes himself master of Egypt.—The Hat faction overthrown in Sweden; the Caps rule.

1766 Christian VII. king of Denmark (Struensee and Brand).—Rockingham administration.—Stamp act repealed, with a reservation of the right of taxation by parliament.—Grafton and Chatham, ministers.—Lorraine again annexed to France.—William V. stadtholder (Orangemen and Anti-Orangemen).—Wallis's, Carteret's, De Pages', and Bougainville's voyages round the world (from 1765 to 1769).

1767 Duty on certain articles of merchandise imported into the North American colonies.—Jesuits expelled from Spain (Aranda, Campomanes).

1768 Colonists in the Sierra Morena (Olavides).—Confederation of the Catholics against the Dissidents at Bar.—War between Turkey and Russia.—Massachusetts circular; Disturbances in Boston; British troops arrive.—Corsica annexed to France.—[Napoleon born, August 15. at Ajaccio].—Frederic the Great restores order and prosperity to Prussia, exhausted by the war.

1769 Clement XIV. (Ganganelli) pope.—Heraclius in Georgia, Ali Pacha in Egypt, and the Mainotes in the Morea, support Russia, the Turkish fleet destroyed at Tchesme and Monembasia.—France cedes Louisiana to Spain.—Cook's first voyage round the world.—Bruce's travels in Africa.—Non-importation becomes general in the North American colonies.

1770 Crimea declares itself independent.—Flight of the Oelot (Calmucks) from Russia.—France sells the Falkland islands to Spain; countess du Barry rules with Aiguillon and Terray over France.—Opposition of the parliaments.—Lord North's administration. Boston massacre. Duties repealed, excepting that on tea.

1771 Surprise and arrest of the king of Poland near Warsaw.—Spain cedes the Falkland islands to the English.—Parliaments in France abolished.—Plague in Russia.

1772 First partition of Poland: Russia takes the country between the Dwina, Dnieper and Drush; Austria takes Galicia; Prussia takes Western Prussia and as far as the Netze.—Revolution in Denmark (the queen Juliana overthrows Struensee and Brand, and causes them to be executed).—Swedish revolution (royal authority restored, the Caps overthrown).—Warren Hastings, governor-general of the East India company's possessions.—Cook's second circumnavigation of the world.—Committees of correspondence in the colonies.

1773 Treaty of Holstein (the Gottorp portion of Holstein is ceded to Denmark by Russia, Oldenburg to Lubeck, and is created a German duchy).—The tea thrown overboard at Boston.—Florida Blanca minister in Spain (until 1792). Clement XIV. (Ganganelli) abolishes the order of Jesuits, which remains in Russia only. [Victory of the temporal power over the ecclesiastical power].—Insurrection of Pugatscheff.—Ali Bey of Egypt defeated (at Salahia) and taken prisoner.

1774 The Russians compel the Turks to conclude a peace. (Crimea remains independent, and the country between the Bog and Dnieper, with Asoph, is ceded to Russia).—Louis XV., king of France, d.; his grandson, Louis XVI., king. Vergennes, minister (from 1774 to 1787). Turgot, minister (till 1776).—Boston port bill. Provincial assembly of Massachusetts.—First continental congress at Philadelphia (September 5th).—The power of the stadtholder increased.—Steam engine (Watt and Boulton).—Pius VI. (Braschi) pope.

1775 Hostilities in America. Battle of Lexington (April 19). Capture of Crown Point and Ticonderoga. American troops besiege Boston. Battle of Bunker hill. Second congress. Articles of confederation. Washington, commander-in-chief.—The British acquire Benares.

1776 War between Spain and Portugal on account of St Sagramento. The British compelled to evacuate Boston, occupy New York. Declaration of independence of United States, July 4. Battle of Trenton. Hume d.—Cook's third voyage round the world.—Adam Smith's *Wealth of Nations*.

1777 The Porte cedes Bukowina to Austria.—Joseph, king of Portugal, d.; Maria Francisca, queen. Don Pedro co-regent; fall of Pombal. (Restrictions on freedom of opinion in Portugal).—Battles of Princeton, Brandywine, Germantown. The British occupy Philadelphia.—Surrender of Burgoyne at Saratoga (Oct. 17).—Necker, minister of finances in France.

1778 War of Bavarian succession (between Frederic the Great and Austria).—France concludes treaties of commerce and amity, and of alliance, with the United States.—Battle of Monmouth.—Peace of Fardo; Portugal cedes St Sagramento, Annaboa, and Fernando Po, to Spain.—Potemkin powerful in Russia (until 1791).—Voltaire d.—Cook d. at Owhyhee.—Invasion of Georgia by the British.

1779 Peace of Teschen (Austria receives the Innviertel).—Disasters of the British in the West Indies and on the Senegal.—Spain engages in the American war.

1780 Armed neutrality of the maritime powers.—Victory of the British at St Vincent (admiral Rodney).—Great Britain declares war against Holland.—Maria Theresa d.; Joseph II. governs the Austrian states. His edict of toleration.—Battle of Camden.—Treachery of Arnold.—Lessing d.

1781 Conquest of the Dutch colonies in the West and East Indies.—Abolition of the Barrier treaty.—Necker retires from the ministry; Calonne, comptroller-general.—Battles of the Cowpens and of Eutaw-springs; lord Cornwallis surrenders at Yorktown (October 19th).

1782 Lord North's administration overthrown; Rockingham, Shelburne, Fox, and the younger Pitt.—The British defeat the French near Guadaloupe, but lose Minorca.—Gibraltar defended by Elliot (floating batteries of the French). In the East Indies, Hyder Ali subjected.—The Spaniards abandon Oran and Masalquivir.—Inde-

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pendence of the Irish parliament.—Preliminaries of Paris (November 30).

1783 Heraclius, czar of Georgia, submits to Russia.—Incorporation of the Crimea with Russia (Russian maritime power on the Black sea).—Hyder Ali d.; his son, Tippoo Saib, succeeds.—Peace of Versailles (Sept. 3). Great Britain acknowledges the independence of the United States, cedes Tobago and Senegal to France, the Floridas and Minorca to Spain, and retains Negapatam.—Balloon (Montgolfier).

1784 Financial distress in France at its height; the debt is nearly 6000 million livres, the deficit annually 80,000,000, and after 1787, 111,000,000.—Peace of the English with Tippoo Saib.—The province of Holland suspends the stadtholder from the dignity of commander-in-chief; in Utrecht is formed the Anti-Orange assembly of cities. Dispute respecting the Scheldt. (The Dutch extinguish the claims of Joseph II. by paying 10,000,000 of guilders).—Sweden purchases St Bartholomew.—Wilson's voyage round the world.

1785 Illuminati in Bavaria. Project for the exchange of Bavaria for the Netherlands.—League of German princes (Frederic the Great's last act).—Formation of the Sierra Leone society.

1786 Frederic the Great d.; his profligate and weak-minded nephew, Frederick William II., succeeds him.—Congress at Ems.—Dutch revolution; the patriots reject the idea of a stadtholder; the wife of William V. is arrested on her journey to the Hague.—Troubles in the Austrian Netherlands on account of the reforms of Joseph II.—Treaty of commerce between England and France.—La Perouse's voyage of discovery.—Cagliostro. Magnetism. Wollner, favourite of the king of Prussia.—Shays's insurrection in Massachusetts (1786 and 1787).

1787 Plan of taxing the privileged orders in France. Meeting of the notables; the states-general demanded.—The convention for forming a constitution for the United States, adopts the federal constitution.—The duke of Brunswick enters Holland with 20,000 Prussians; it is conquered in twenty days, and the stadtholder re-established in his authority.—War with the Turks.—William Bligh circumnavigates the world (1787—1790).

1788 The French minister Brienne incapable of quieting the storm.—Charles IV., king of Spain.—War between Russia and Turkey, and between Russia and Sweden.—Establishment of the colony of New South Wales; Botany Bay.—The federal constitution adopted by the state conventions.

1789 Beginning of the French revolution; constituent assembly; the third estate acquires the preponderance (abbe Sieyes); Necker again minister; Bastile taken (July 14); feudal system abolished (August 4); origin of the clubs. (Orleans, Mirabeau). The 5th and 6th October.—Corsica united with France.—Coburg and Suwaroff defeat the Turks; Laudon takes Belgrade; the Russians obtain Bender, Akermann, and Chocsim.—Troubles in the Netherlands (Van der Noot, Meersch); in Hungary; Prussia and the maritime powers determine to assist the Turks.—Washington, first president of the United States (till 1797). First congress under the federal constitution meets at New York (March 4).

1790 France divided into eighty-three departments; confiscation of goods abolished; *lettres de cachet* abolished; war and peace belong to the nation; membership of the national guards essential for citizenship; abolition of hereditary nobility; sale of the church lands; civil constitution of the clergy; creation of justices of the peace and family courts; useful inventions made the property of the inventor. Necker dismissed September 4. Confederation of the *Champ-de-Mars*, July 14. Beginning of emigration. Patriotic donations amount (July 31) to 12,500,000 francs.—Franklin d.—Joseph II. d.—Termination of the dispute between Spain and Great Britain respecting Nootka sound (the north-west coast, British).—War with the Indians; general Harmar defeated. First census of the United States; 3,929,536 inhabitants.—Troubles in Hungary and the Netherlands quieted.

1791 Mirabeau d.; the church of St Genevieve converted into the Pantheon; decree that no member of the constituent assembly should be re-eligible to the next national assembly; issue of 600,000,000 of assignats; the king and family attempt to escape, arrested at Varennes; constitution of Sept. 3, 1791 (limited monarchy); first session of the legislative assembly; the property of the princes and other emigrants confiscated; insurrection at St Domingo.—Poland receives a new constitution, the elective monarchy made hereditary.—Vermont admitted into the Union.—General St Clair defeated by the Indians.

1792 In France, property of the emigrants declared national; guillotine; war against the king of Bohemia and Hungary; August 10, the king suspended; August 13, king and family carried to the Temple; the massacre of the 2d and 3d of September; Louvre national museum; national convention; substitution of *citoyen* and *citoyenne* for *monsieur* and *madame*. September 21, abolition of royalty, moved by Collot-d'Herbois; September 28, the French republic declared one and indivisible; emigrants banished for ever under pain of death. Manifesto of the duke of Brunswick.—Cannonade of Valmy (Kellerman).—The allies driven out of France. Dumouriez victorious at Jemappes. Montesquiou occupies Savoy, Custine Mentz. Savoy annexed to France.—British sinking fund increased.—Intercourse of Russia with China by the ancient route through Kiachta restored.—Kentucky admitted into the Union.

1793 Louis XVI., thirty-eight years old, having reigned over eighteen years, beheaded Jan. 21 (of 714 votes given for death; Malesherbes and Trouchet defend him; constitution of 1793; May 31, the Mountain victorious over the Girondists; terrorism, revolutionary tribunal, committee of public safety (Robespierre). War against England and Holland. The German empire, Great Britain, Prussia, Holland, Portugal, Sardinia, the Two Sicilies, and the pope against France; insurrections in Vendee, Lyons, Bourdeaux, Marseilles, Toulon taken by the English, and Louis XVII. declared king. Eleven armies created by a levy en masse. Jourdan defeats the Austrians at Fleury, Pichegru takes possession of Holland; Lyons taken; Toulon recovered (Napoleon Bonaparte lieutenant of artillery). Forced loan of two *milliards* of francs applicable to the rich only; law of the maximum. Marie Antoinette executed, October 16; Philip Egalite (Orleans) November 6. Marat killed by Charlotte Cordey, July 13. telegraph (Chappe); uniformity of weights and measures; first discussion of the new code, presented by Cambaceres; every workman receives two francs for each session of his section in Paris; women obliged to wear the tricolored cockade.—Alliance of Spain and Great Britain at Aranjuez.—Second partition of Poland (the republic hardly retains one-third of her territory).

1794 French arms every where successful on land, but the British by sea. In France terrorism continues. Jan. 4, slavery abolished; Robespierre, the incorruptible dictator until the revolution of 9th Thermidor (July 27), executed July 28; the more moderate party rules, *maximum* abolished; the revolutionary tribunal remodeled.—Conquest of the Netherlands. The minister of the United States receives the fraternal accolade from the president of the convention; clubs suppressed, the Jacobins dispersed; primary schools established.—Insurrection in Poland; Kosciusko is taken prisoner at Maciowice by the Russians. Seweroff storms Praga, the suburb of Warsaw; 14,000 persons massacred.—Indians defeated by general Wayne. Insurrection in Pennsylvania. Jay's treaty.

1795 New revolution in Paris; struggle of the Jacobins against the moderate party continues; the former subjected. Third constitution (five directors at the head of government; councils of the ancients and of the five hundred. Depreciation of the assignats and mandats. Peace with Tuscany, Prussia (at Bale), Spain, and Hesse-Cassel; defeat of the emigrants at Quiberon.—The prince of peace (Godoy) favourite in Spain.—Disturbances in Ireland.—Revolution in Amsterdam and Leyden (January).—The stadtholder flies to England; his office abolished, peace between Holland and France (Flanders, Maestricht, and Venloo ceded to the latter).—Third and final partition of Poland, October 24.

1796 Jourdan and Moreau pass the Rhine; the archduke Charles victorious; famous retreat of Moreau.—Bonaparte general in Italy, conquers all the northern part, except Mantua, and forces Sardinia to a peace. Hoche restores tranquillity in Vendee; Corsica retaken from the British; attempted landing in Ireland unsuccessful. Peaces and armistices concluded between France and the German princes and the pope.—Association of Northern Germany.—Naples neutral.—Alliance of Spain with France at St Ildefonso.—Confusion of the Dutch finances; national assembly at the Hague.—Catharine II. d.; Paul I., emperor of Russia.—Tennessee admitted into the Union.

1797 Bonaparte victorious over three Austrian armies, conquers Mantua, and obliges the pope to conclude the peace of Tolentino. Hoche and Moreau pass the Rhine. Preliminaries of peace at Leoben. Ligurian and Cisalpine republics established. Old Venetian government dissolved. Revolution of 18th Fructidor. Bankruptcy under the name of *consolidated third*. Peace of Campo-Formio (Austria receives, in exchange for the Netherlands and Lombardy, Venice, Modena, the Brisgau). Congress of Rastadt. Bonaparte, returning from Italy, is received by the directory with great distinction. Naval battle at St Vincent.—Mutinies in the British navy.—Suspension of specie payments by the bank of England (without serious consequences).—Passwan Oglu at Widdin.—New commercial treaty between Russia and Great Britain.—John Adams second president of the United States.—Treaties with France declared to be no longer binding.

1798 General seizure of British merchandise; forced loan of eighty millions of francs for the descent upon Britain.—Roman republic.—The Rhenish frontier the basis of peace. Geneva annexed to France; revolution in Switzerland. Maritime edict of Nivose 28.—Bonaparte sails from Toulon, destination unknown; takes Malta; invades Egypt. Nelson destroys the French fleet at Aboukir. New coalition against France.—The French enter Tuscany, Lucca, and Naples.—Rebellion in Ireland suppressed by lord Cornwallis (the French general Humbert taken).—Democratic party victorious in the Hague; Batavian republic, one and indivisible.—New Helvetic, Lemanic (Geneva) and Rhodanic

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(Avignon) republics.—The Russians and Turks conquer the Ionian Islands.—Paul assumes the title of protector of the order of Malta; Odessa begins to flourish.

1799 The archduke Charles is victorious in Germany; Jourdan retreats behind the Rhine.—Charles enters Switzerland; Suwaroff in Italy; the British land in Holland. Revolution of 30th Prairial. Massena victorious in Italy; the British unsuccessful in Holland.—Paul secedes from the coalition, and Suwaroff returns to Russia, Oct. 7. Bonaparte returns to France, informed of the disasters of his country by his brother Joseph. Revolution of the 18th Brumaire (fourth constitution). Bonaparte first consul for 10 years. He re-establishes order.—Northern convention; difficulties between Denmark and Great Britain; the British take Seringapatam; Tippoo Saib falls before the gates of his capital, and Mysore is divided among the conquerors. —Republic of the Seven Islands.—Washington d.

1800 Restoration of civil and military order in France. Armaments. Army of reserve at Dijon.—List of emigrants closed.—Beginning of the campaign on the Rhine (Moreau). The army of reserve passes the St Bernard.—Bonaparte victorious at Marengo; Moreau at Hohenlinden. Malta taken by the British. Act of union with Ireland passed.—Convention between the United States and the French republic.—Attempt against the life of the first consul (infernal machine).—Northern convention for the restoration of the armed neutrality.—Pius VI. (Chiaramonti) pope.

1801 Revolution in Switzerland. Egypt evacuated. Peace of Luneville (the Adige becomes the frontier between the Cisalpine republic and Austria, the left bank of the Rhine and Piedmont remain French; Tuscany ceded to Parma, as the kingdom of Etruria).—Prussia joins the northern convention.—Peace with Sicily, Portugal, Russia.—Concordate with the pope. Expedition of 25,000 French troops to St Domingo, destroyed by disease and the Negroes.—War between Spain and Portugal.—Nelson victorious at Copenhagen. Prussians take possession of Hanover.—Restoration of the Catholic worship in France.—Pitt retires from the ministry; Addington minister.—Preliminaries of peace at London.—Peace of Madrid (Portugal, and Spain), of Paris (Russia with France and Spain).—Congress of Amiens.—Constitutions in Holland, Switzerland, and Lucca.—Union with Ireland effected. First imperial parliament.—The vizier of Oude taken under the protection of the British; the nabob of Arcot pensioned; the Carnatic conquered by the British.—Paul I. strangled. Alexander I., emperor and autocrat of Russia. Georgia a Russian province.—Thomas Jefferson third president (till 1809). War against Tripoli.

1802 Peace of Amiens with the British, who of all their conquests retain only Ceylon and Trinidad; republic of the Seven Islands acknowledged. Peace with the Porte; France acquires the right of navigation on the Black sea. Legion of honour. Bonaparte consul for life, president of the Italian republic.—Piedmont French.—Amnesty of the emigrants.—Treaties of indemnification with Russia, Prussia, Wurtemberg, Orange, and Austria.—The Valais an independent republic.—Liguria receives a new constitution.—Peace between Spain and Portugal at Badajos; Olivenza remains Spanish.—Russian senate restored.—War in Hayti.—Ohio admitted into the Union.—Louisiana ceded by Spain to France.

1803 Bank in France. France interferes in the Helvetic disturbances; act of mediation. New maritime war. France occupies Hanover. Beginning of the continental system.—Louisiana purchased by the United States for 15,000,000 dollars.—Recess of the deputation of the empire (Germany cedes to France 25,500 square miles, with four millions of inhabitants; almost all the imperial cities and the spiritual principalities abolished; four new electors created: Salzburg, Wurtemberg, Baden, and Hesse).—Peace between the British and the Mahrattas (the Great Mogul pensioned; the East India company acquires Delhi, Agra, &c.)

1804 Conspiracy against Bonaparte (Pichegru, Georges, Moreau). Duke d'Enghien shot.—Napoleon Bonaparte, emperor of the French (anointed and crowned, Dec. 2.) Great preparations in Boulogne for a descent upon England.—Austria a hereditary empire.—Pitt minister.—Kant d.—Establishment of the colony of Van Diemen's Land.—Sannikof discovers New Siberia.

1805 Genoa and Parma united with France. Coalition of Austria and Russia against France. Napoleon in Vienna. Peace of Presburg; takes from Austria, Venice, Tyrol, Breisgau, &c.; Tuscany receives Wurtzburg in exchange for Saltzburg.—Nelson victorious at Trafalgar against the French and Spanish fleet; killed in the action.—Lucca granted as a hereditary principality to Napoleon's sister Eliza, and her husband Bacciochi.—Schimmelpenninck pensionary of Holland with dictatorial power.—Schiller d.—Negro state of Hayti; Dessalines emperor, under the name of James I.

1806 Holland a kingdom under Louis I., Napoleon.—Berg and Cleves given to Joachim Murat, brother-in-law of Napoleon, Naples to Joseph, brother of Napoleon. The former king retires to Sicily, where he is protected by the British (Collingwood). Eugene Beauharnais

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declared viceroy of Italy and successor of Napoleon on the imperial throne.—German empire dissolved. Napoleon protector of the confederation of the Rhine. Maximilian I., king of Bavaria; Frederic I., king of Wurtemberg; Charles Frederic, grand-duke of Baden; Louis, grand-duke of Hesse; Dalberg, prince-primate. —Imperial family statute.—The idea of the grand empire developed.—Prussia takes possession of Hanover; Britain declares war against Prussia. Napoleon marches to Germany; victorious at Auerstadt and Jena. Napoleon's decree of Berlin, declaring the British islands in a state of blockade.—Saxony a kingdom. —Dessalines killed.—Pitt d. Jan. 2.; Fox, minister, d. Sept. 13.—Turkish war. The British conquer the cape of Good Hope and Buenos Ayres, but evacuate the latter.—Disturbances in South America.—American vessels captured by British cruisers; the latter forbidden to enter American ports.

1807 War between France and Russia.—Battles of Eylau and Friedland. Peace of Tilsit.—Prussia loses half her territory, which her enemies and allies divide. Elector of Hesse and duke of Brunswick deprived of their prerogatives of sovereignty.—Kingdom of Westphalia under Jerome, brother of Napoleon, and duchy of Warsaw founded. Confederation of the Rhine extends to the Baltic. Great continental system (British orders in council; Milan decree). The British bombard Copenhagen and take the Danish fleet.—Attack on the American frigate Chesapeake. Embargo laid by the government of the United States.—Ragusa united with Italy. The French enter Spain and Portugal. The house of Braganza flees to Brasil.—*Code Napoleon.*—The constitution of the Mulattoes (Petion) and of the Negroes (emperor Henry in Hayti.—Abolition of the slave-trade by the British parliament.—Revolution in Constantinople; Selim III. dethroned; Mustapha IV., Padishah.—The Wahabites in Mecca and Medina.—The British obtain possession of Surat and other districts.—The British again conquer Buenos Ayres and again abandon it.

1808 War between Russia and Sweden.—Revolution at Aranjuez. Napoleon dethrones the Bourbon dynasty of Spain. Joseph Napoleon, king of Spain; Joachim Murat, king of Naples; Berg is subsequently given to the prince royal of Holland.—Congress of Erfurt.—Revolution in Constantinople; Mahmoud II., Padishah. —The French arms unsuccessful in Spain. The emperor goes thither himself.—Abolition of the inquisition and feudal privileges.—The Wahabites spread over Western Asia.—Insurrection in Venezuela.

1809 War in Spain continues.—Austria declares war against France. Napoleon in Vienna. Battles of Aspern and Wagram. Peace of Vienna (Austria loses Illyria, which, with Dalmatia, is erected into a state under the protection of France; Western Galicia and the salt mines of Wieliczka ceded to Warsaw; Tarnopol to Russia; Saltzburg, &c., to Bavaria). Napoleon arbitrator of Europe.—Abolition of the temporal power of the pope; Valais annexed to France; the Ionian republic French.—Revolution by the Swedish aristocracy; Gustavus IV. deprived of the throne; Charles XIII., king. Peace with Russia at Fredericshamm, by which the Swedes lose Finland, Aland, and part of the Lappmark.—The prince of Holstein-Augustenburg chosen successor to the throne.—Madison fourth president of the United States. Embargo repealed; non-intercourse law.—Battle of Corunna; fall of Sir John Moore.

1810 The Spaniards confined in Cadiz; Wellington British commander in Portugal.—The pope excommunicates Napoleon (is carried to France; the States of the church and Tuscany incorporated with France; Rome becomes the second capital of the empire).—Napoleon repudiates Josephine and marries Maria Louisa, daughter of the emperor of Austria.—Decree of Trianon; Louis deprived of Holland, which is incorporated with France, as is also the north-west of Germany, the mouths of the Ems, Jahde, Weser, and Elbe; a new hereditary nobility in France; the imperial university established.—The prince of Augustenberg d.; Charles John Bernadotte elected Swedish crown-prince.—Revolutions in Caracoas, Mexico, Southern Peru, and Buenos Ayres.—Affair of the Little Belt.

1811 Unsuccessful negotiations between Russia and France.—Prince of Wales is made prince regent. King of Rome (son of Napoleon) born.—War in Spain carried on with various success.—Declaration of independence of the seven provinces of Venezuela (July 5). Bogota (New-Granada) declares itself independent. The government of the United Provinces of the Rio de la Plata (Buenos Ayres) frees the Indians from tribute.—Mohammed Ali, pacha of Egypt.—Louisiana admitted into the Union.

1812 Napoleon marches to Russia. An army of 500,000 men passes the Niemen. Austria and Prussia allies of France. Alexander makes peace with the Turks; acquires Bessarabia and part of Moldavia. French enter Moscow, which is burnt September 16. Disastrous retreat of the French, and destruction of the army. Not more than 10,000 men in a fighting condition reach the frontier. York, Prussian general, goes over to the Russians. Napoleon in Paris, organizes a new army.—War between United States and

A.D. Great Britain. Invasion of Canada by the Americans; disasters in Canada; naval successes.—New constitution in Spain.—Russia acquires many provinces in Asia.—Mohammed Ali takes Mecca and Medina from the Wahabites.—Dictatorship in Venezuela.—Invasion by Spanish troops under Monteverde. The dictator, Miranda, flees. Venezuela conquered.

1813 Prussia joins Russia. *Levee en masse* in Prussia. The duchy of Warsaw dissolved. Bernadotte declares against France. Napoleon victorious at Lutzen and Bautzen, but with great loss. Austria joins the allies. Bavaria and other members of the Rhenish provinces begin to desert the French. Battle of Dresden. Moreau d. Many battles; one of the greatest in history at Leipsic (October 16, 17, 18, and 19). Kingdom of Westphalia dissolved. The Orange party recalls the stadtholder, William V., as sovereign; Holland conquered.—Wellington victorious in Spain. King Joachim of Naples treats with Austria against France.—Simon Bolivar drives the Spaniards from Caracas.—Civil war in New Granada.

1814 Quadruple alliance.—Battle of lake Erie.—The allies enter Paris, March 31. Napoleon abdicates and goes to Elba.—The Bourbons restored. Louis XVIII. France is promised a constitution. First peace of Paris. France reduced to her old limits; retains, however, Avignon, part of Savoy, and the Netherlands; Great Britain retains the Cape of Good Hope, Mauritius, Tobago, St Lucie, Essequibo, and Demerara, Malta, Heligoland, and the protectorship of the seven Ionian Islands. The pope, the king of Sardinia, the grand duke of Tuscany, the duke of Modena, the elector of Hesse-Cassel, the dukes of Brunswick and Oldenburg take possession of their states. Ferdinand of Spain, previously released, enters Spain, solemnly promises a constitution, but breaks his word.—Norway is given to Sweden, revolts and chooses a Danish prince king, but Bernadotte suppresses the revolt, and Norway is made a distinct kingdom, with a liberal constitution, under the same monarch as Sweden.—Battles of lake Champlain and Plattsburg. Treaty of Ghent between Great Britain and the United States (December 4). Monarchs visit London. Congress at Vienna. Restoration of the Jesuits by the pope. The returned emigrants show that they have not lost their former arrogance, and their unfitness for government.—General Bolivar beaten by the Spaniards under Boves; he retreats to Carthagena.—Creek war; general Jackson takes Pensacola.

1815 Battle of New Orleans; (general Jackson. January 8). Napoleon returns from Elba, March 1, and enters Paris, March 20.—Louis XVIII. flies to Ghent, and Napoleon declares that he will respect the peace of Paris. The king of Naples (Murat) declares for Napoleon, but an Austrian army dethrones him, and the king of Sicily returns.—Decrees of the congress of Vienna: Austria and Prussia return to their state before 1790; the kingdom of Poland constituted under the protection of Russia; Saxony divided (part to Prussia), Genoa given to Sardinia; Parma is given to Maria Louisa; the old constitution of Switzerland, with some modifications, restored; the Germanic confederacy established.—War against Napoleon; battle at Ligny, at Waterloo (June 18), British (Wellington) and Prussians (Blucher) entirely victorious.—British and Prussians take Paris. Napoleon abdicates in favour of his son, and the chambers accept the abdication. He throws himself on the mercy of the British, who confine him, as the prisoner of the allies, in St Helena.

1815 Monarchs firmly united against the people; Louis XVIII. restored a second time by foreign arms. He cedes Savoy, Landau, and Saar-Louis, and pays 700,000,000 francs; France is occupied by 150,000 allied troops until quiet is restored.—Holy alliance September 26; principle of legitimacy under the cloak of religion.—Joachim Murat returns to Calabria, is shot October 15.—Republic of the Ionian Islands proclaimed.—Poland receives a new constitution.—The United States of Buenos Ayres declare themselves independent. General Morillo lands with a new Spanish army at St Martha; conquers Carthagena.—All Ceylon reduced by the British (end of the kingdom of Candy).—The British receive, by the peace with Nepaul, the country between the Setlege and the Jumna.—Revolution in China suppressed after much bloodshed.—The American squadron under Decatur forces Algiers, Tunis and Tripoli to accede to terms of peace.

1816 British and Dutch bombard Algiers, and force it to accede to a peace.—The British cede Batavia and the Spice islands to the Dutch for Cochin.—Indiana received into the Union of the American states.—Bolivar beaten by Morillo.—The Independents in Venezuela successful.—Bolivar commander-in-chief.—Congress of the provinces of La Plata at San Miguel de Tucuman.—Declaration of independence.—Don Juan Martin de Puyrredo director-general with dictatorial power.—Mission of general San Martin for the delivery of Chile.

1817 Prohibition of the slave trade to the French colonies.—Several powers conclude concordates with the pope.—Spain accedes to the acts of the congress of Vienna.—Treaty between Spain and Britain respecting the abolition of the slave trade.—Rajah of Nagpour becomes tributary to the British.—Declaration of independence of Chile. Bolivar chief of Venezuela; victorious over the Spaniards.—The Brazilians take Montevideo.—Campaign against Peru.—The partisan leader Artigas.—Monroe fifth president of America (till 1825). Mississippi received into the Union.—Reform meetings in England and Scotland. Suspension of the Habeas Corpus act. Death of the princess Charlotte.

1818 Congress of Aix-la-Chapelle; confirmation of the holy alliance. The foreign troops leave France.—Charles XIII. d.; Charles John (Bernadotte) king of Sweden.—End of the Mahratta war; the state of the Peishwa dissolved; Holcar loses half of his dominions, and becomes tributary to the British; Scindiah humbled. The British masters of all the East Indies, with the exception of Nepaul and the states of the Seiks and Sindies, whose power, moreover, is broken.—Movements of the liberalists in Germany; carbonari in Italy, party struggles in France.—Illinois received into the Union of the American states. Seminole war; general Jackson. Internal commotions at Buenos Ayres.—Chile entirely freed by San Martin's victory on the Maypo.—O'Higgins supreme director.—Lord Cochrane admiral.

1819 Trials of the liberals in Germany. Congresses at Carlsbad and Vienna.—Relations of the revolted states of South America with the United States, Great Britain, and Brazil.—Venezuela and Caracas united under the name of the republic of Colombia. Bolivar president.—Alabama admitted into the Union. Arkansas territory organized.—Radical reform meetings. Manchester massacre.—Castlereagh's "six acts" passed.

1820 Military insurrection in Cadiz; constitution of the cortes of 1812 proclaimed; the king obliged to accept it. Abolition of the inquisition, liberty of the press, dissolution of the monastic orders, attention to schools, the immediate consequences of the revolution.—Portugal and Naples adopt similar constitutions in a similar way, viz., by military insurrection.—Congress of Troppau. The holy alliance determined to support its principles. Duke of Berry assassinated.—Expulsion of the Jesuits from Russia.—George III. d.; George IV. succeeds.—Trial of the queen of Great Britain.—Henry, emperor of Hayti, d.; all the island submits to Boyer.—Maine admitted into the Union of the American states.—Campaign in Peru (siege of Lima).—The possessions of Spain in Colombia reduced to Puerto Cabello and Maracaibo.—Morillo returns to Spain.—Struggle of parties in Buenos Ayres.

1821 Napoleon d. at St Helena, May 5, after having dictated his memoirs.—John VI. returns from Brasil to Portugal, and adopts the constitution.—Revolution in Brazil.—Congress of Laybach.—The Austrians enter Naples and destroy the new order of things.—An insurrection in Alessandria induces Victor Emanuel to abdicate; Felix, his brother, king. The Austrians occupy Piedmont. Prince Carignano.—Insurrection in Moldavia and Walachia by the Hetæria (Alex. Ypsilanti).—His defeat at Dragashan; carried prisoner into Austria.—Insurrection in Greece.—Execution of the patriarch at Constantinople.—Russian ukase respecting the north west coast of America.—The Greeks take Tripolitza.—Yellow fever in Barcelona.—Guatimala independent.—Brazil acknowledges the independence of the South American republics.—Peru independent.—Florida cedes to the United States. Missouri admitted into the Union.

1822 Disturbances in Spain promoted by the clergy; army of the faith.—Troubles in Ireland.—Boyer enters the city of St Domingo, and becomes master of the whole island.—Ali Pacha taken by the Turks and strangled.—Riego enters Madrid.—New British navigation act.—Eruption of Vesuvius; a new volcano on the island of Oomnak.—Bolivar conquers Quito. Mexico declares itself independent; Augustine Iturbide emperor.—State of Dr Francia in Paraguay.—Castlereagh kills himself; Canning minister of foreign affairs.—First national congress of the United States of South America. Brasil separates from Portugal; Peter I. emperor.—Greek congress at Epidaurus.—Destruction of Scio by the capudan pacha.—Turks in the Morea defeated.—Success of the fire-ships off Scio. Naoplia surrenders to the Greeks. Disturbances at Constantinople.—Congress at Verona (principle of armed intervention).—The United States sends ministers to the Spanish republics.—Hieroglyphics deciphered (Champollion).

1823 The ministers of the great powers leave Madrid, Russia declares herself openly. France undertakes to support the king of Spain. French enter Madrid, May 24. This encourages Don Miguel to plant the standard of absolutism in Lisbon. The cortes of Madrid conduct the king to Cadiz; the duke of Angoulême directs him. In Portugal the party of the queen victorious against the liberals; constitution abolished.—Many expelled from the chamber of deputies.—Irish disturbances continue.—Pius VII. d.; cardinal Genga succeeds as Leo XII.—The Austrians leave Naples.—The struggle continues in Greece; both parties feeble.—Singapore increases in commercial importance.—In Africa the Ashantees repelled by the British. Brunn and Italian travellers penetrate into the interior of Africa (Denham, Clapperton, Dr Oudeney, Belzoni).—Confusion continues in South America.—Iturbide overthrown in Mexico, banished to Italy; republic established. In Colombia, the last hold of the Spaniards, Puerto Cabello, falls. In Peru, Bolivar acquires the

A.D. direction of affairs, and, in Lima, is elected commander-in-chief of Peru. Disturbances in Brazil are suppressed, and Monte Video, under the name of *Cisplatina*, forms a part of the great empire. The national convention in Mexico pronounces the union of all the Mexican provinces in one confederacy, on the model of the union of the Anglo-American states.

1824 Rebellion of the Infant Miguel at Lisbon. The king flees on board the British admiral's vessel in the Tagus. Internal peace is restored, don Miguel exiled, the queen put in a convent: the fermentation continues. —In Spain, peace is preserved by French arms only, and it is stipulated by treaty, that the French army shall remain in Spain until January 1, 1826. But the Camarilla and Apostolic Junta demand religious and political persecution. August 3, a constitutional corps lands at Tarifa, but is defeated August 19. Only 25,000 French remain, and occupy Cadiz, Barcelona, Saragossa, Vittoria, &c.—In France, unsuccessful opposition of the chambers to the ministry.—Birmese war.—The king of the Netherlands cedes the Dutch East India colonies on the continent, with Malacca, to the British, in exchange for the British Sumatra and Bencoolen; the sultan of Palembang cedes his territory to the Netherlands, and receives a pension.—In Germany, new prosecutions against the liberals.—The Russian south-west company is founded.—Gonsalvi d. —Lord Byron in Greece.—Mohammed Pacha repels the Wahabites.—Iturbide returns to Mexico, but is taken and executed. Mexican confederacy.—The Spaniards drive the Colombians from Lima, but their army in Upper Peru is defeated at the battle of Ayacucho, December 9.—Disturbances in Brazil suppressed. The emperor swears to the new constitution.—Lafayette in America.

1825 Portugal acknowledges the independence of Brazil, Aug. 29. The ultra party, in spite of the amnesty, causes troubles in that country and in Spain. Change of ministers; insurrections break out.—The civil list, indemnification of emigrants and three per cents. occupy the French chamber; Villele prevails. Independence of Hayti acknowledged. Charles X. crowned at Rheims, May 29.—Great Britain acknowledges the South American republics, January 1. Great crisis.—Scarcity of money at London and Paris, felt all over Europe and the United States.—Alexander I. died Dec. 1, at Taganrock; Cesarovitch Constantine declared emperor, but he renounces in favour of his brother Nicholas.—Disturbances in consequence at St Petersburg.—Ibrahim Pacha, son of the pacha of Egypt, devastates the Morea. Reshid Pacha advances to Missolonghi, which is defended with heroism. By sea, the Greeks are generally victorious.—Birmese war continued; the British march up the Irrawaddi, take Prome.—Beginning of the insurrection in Java.—Bolivar dictator of Peru, conquers Cusco.—Upper Peru declares itself independent, under the title of *Bolivia*.—Dispute between the provinces of La Plata and Brazil, respecting Cisplatina; December 10, the emperor declared war against the United Provinces, after hostilities had been commenced.—J. Q. Adams, sixth president of the United States.

1826 John VI. of Portugal d.; his will appoints the Infanta Isabella Maria head of the regency, which don Miguel acknowledges, April 7, at Vienna, and the emperor Pedro I. confirms. The latter renounces the crown of Portugal in favour of his daughter Maria da Gloria, a child seven years old, and gives a liberal constitution, July 31. The monks and nobility oppose the charter; insurrections break out, and, October 9, don Miguel is proclaimed absolute king; but he swears to observe the constitution, October 30, and is contracted with Maria da Gloria. Chaves and Silveyra attack the regent, and Canning sends 15,000 men to assist her.—Spain torn by the apostolic party.—In France, the Jesuits (Congregation) and the absolutists become bolder.—In the Netherlands, troubles respecting the ultramontane principles.—Adams and Jefferson die, July 4.—Congress of Ackerman settles the disputes between Russia and Turkey. Great conflagration in Constantinople; European soldiers. Missolonghi taken by the Turks, April 22, but her heroic defence attracts the attention of all Europe. Factions distract Greece. —In East India, the rajah of Bhurtpore subjected; the Birmans compelled to conclude a peace with the British before their capital, by which Aracan and the south-western coast become British, and Assam and the Garrow princes are delivered from the Birmans.—The Chinese fight against the revolted Tartars in Mongolia. —Great Britain closes the ports of the West Indies.—Chiloe and Callao, the last places which the Spaniards held on the continent of America.—Congress of Panama.—The credit of the South American republics declines.—Paez revolts against Bolivar, who enters Caracas and quiets the country.—New Holland becomes more known by travels in the interior.

1827 The British army restores tranquillity in Portugal.—In France, the ministry unpopular, the law relating to the jury passed, but not the law against the press. National guards abolished. France favourably disposed towards Greece; sends a fleet to Algiers.—The Congregation grows powerful.—Lord Liverpool succeeded by Canning, as prime minister.—The pope confirms a new monastic order.—The Persians in the war with Russia, are defeated at all points. Abbas Mirza defeated, and the fortress of Abbas Abad taken. The Russians advance in Aran, conquer Erivan, &c., and, in the peace, Persia is obliged to cede Aran, &c., and pay 18,000,000 rubles.—Cochrane arrives in Greece, but cannot prevent the fall of Athens. The Greeks, in great danger, implore the aid of the European powers. —The Tartar insurrection against China continues. Paez submits to the liberator. Counter revolution in Peru, which overthrows all the institutions of Bolivar. —The treaty of pacification, in favour of Greece, between Britain, Russia, and France, is signed.—Capo d'Istria is elected president of Hellas.—The Carlists in Spain (called now *Agraviados*), demand the restoration of the inquisition, and excite an insurrection in Tarragona.—The Warspite, the first British ship of the line which sailed round the earth, returns.—The king of the Netherlands signs the concordate with the pope.—Canning d. Goderich administration.—Earthquake at Tokat. Captain Parry returns from the North sea, without having found the desired passage.—In the battle of Navarino, October 20, the British, Russian, and French fleets destroy the Egyptian fleet.—Clapperton dies.

1828 Capo d'Istria lands in Greece. He establishes the Panhellenicon at Napoli.—Abolition of the test and corporation acts. Wellington's administration. — Don Miguel arrives in Lisbon, dissolves the chambers, summons the cortes, which proclaims him absolute monarch. The constitutionalists, who march from Coimbra, are defeated. The British leave the forts at Lisbon. The Brazilian ministers at London and Vienna protest against the usurpation of don Miguel.—The Russian cabinet declares that it must have satisfaction for itself from the Porte, but as to Greece, it agrees with France and Britain. Declaration of war, April 26.—The Russian campaign begins; the Russians are victorious at first, and enter Varna, but, in October, begin their retreat from before Shumla; general Wittgenstein, the commander-in-chief of the Russian forces, establishes his head-quarters in Jassy. All Bulgaria, with the exception of Varna, is abandoned by the Russians; the siege of Silistria raised; the heavy artillery abandoned.—A division of French troops under Maison lands in Morea; Ibrahim Pacha concludes, with admiral Codrington, a convention to evacuate Morea, which he does in October.—Peace between Peru and Bolivia.—Bolivar, dictator of Colombia, June 13: his proclamation of September 13. Vice-president Santander and general Padilla conspire against him. His aids-de-camp killed, Santander taken prisoner. — Peace between Naples and Tripoli.—Executions and imprisonments in Portugal. Expedition against Madeira and Terceira, which declared for the emperor Pedro. The former is taken, August 22. The queen of Portugal, donna Maria da Gloria, arrives in London, October 6; the king receives her as a queen.—In Mexico, general St Anna, governor of Vera Cruz, declares against Gomer Pedraza, the newly elected president, and in favour of Guerrero, the rival candidate.—Disturbances in Ireland, and the Catholic association resumes its sittings, the act against it having expired (O'Connell, Shiels).—London university opened.—Caille returns from Timbuctoo.—Dumont d'Urville makes a voyage of discovery in the years 1826 to 1829.—Dismission of Villele.

1829 Pope Leo XII. died (Feb. 10), and is succeeded by Pius VIII.—General Diebitsch is put at the head of the Russian army in February. A protocol of Great Britain, France, and Russia, arranging the government, boundaries, &c., of Greece. Diebitsch gains an important victory near Shumla over the Turks; in the middle of July, he passes the Balkan; in August, he takes Adrianople, and a treaty of peace is signed at this place between Russia and Turkey in September.—In France, the Martignac ministry is dismissed, and, August 8, the ultra ministry of prince Polignac formed.—Catholics emancipated by the British parliament in April.—In December, the suttees (burning of widows) abolished in the East Indies by the British government.—The Greeks gain some victories over the Turks, but the internal state of Greece is afflicting. Missolonghi and Anatolico surrender to the Greeks in May, Lepanto in April. The president, Capo d'Istria, opens the Panhellenicon in July. Troubles in Portugal under the usurper, don Miguel, who establishes courts against the constitutionalists, the judges of which are to be remunerated by the confiscated property of the latter. An attack upon Terceira fails.—Spain acknowledges don Miguel; deplorable state of Spain.—Confusion in South America. Vincente Guerrero chosen president of Mexico. Insurrection in the south of Colombia. In Buenos Ayres, Lavalle's government attacked, and Meza, the chief opponent, executed. At Tarqui, a battle between the Colombians and the Peruvians in February; the latter are defeated. The parties conclude peace in October. The city of Guatimala capitulates, after a long siege, to the army of San Salvador, under general Morazan. In Lima, a revolution favourable to Bolivar in June. A battle between the Colombian troops under Paez, and those under generals Quiroga and Gustos, in June; the latter are defeated. Peace concluded between Lavalle and Rosas, in the

A.D. Argentine republic, in June. Spain sends general Barradas to re-conquer Mexico; he fails entirely, and is compelled to surrender, September 12, to general Santa Anna. Slavery abolished in Mexico by a proclamation of the president Guerrero, in virtue of the extraordinary power conferred upon him on account of the disturbed state of Mexico. In September, a new and successful revolution breaks out in Buenos Ayres, against Lavalle; and in the same month Venezuela, under Paez, declares herself independent of Colombia; in November, Yucatan separates from the Mexican union, and the province of Conception declares itself independent of Chile. In December, Bustamente, vice-president of Mexico, heads a revolution against the president, and is successful. In Chile, a civil war begins, and a battle takes place between the generals Luctra and Prieto. Bolivar convokes a constituent congress, to form a new constitution.—In Manilla, a conspiracy is discovered to declare the island independent.—Andrew Jackson, president of the United States. Treaty between the United States and Brazil.—Captain Ross sails from Woolwich, England, in a steamboat, for the discovery of the north-west passage.

1830 The ultra party in Europe seem, at the beginning of this year, to be fast increasing in power over the liberals.—George IV., king of Great Britain, dies; William IV. succeeds.—In March, the address of the 221 deputies to Charles X.—In France, priests and ultras firmly united. French expedition against Algiers; the city taken, July 5. July 25, the three fatal ordinances are issued, to overthrow the charter. A *coup d'etat* violently demanded by the ultras. Glorious resistance of the Parisians. Charter amended, and Louis Philip, duke of Orleans, declared king; August 9, he takes the oath. National guards re-established.—The Belgians rise against the Dutch in August, and after bloody contests declare Belgium independent, October 4.—Insurrection at Brunswick against the brutal duke, in September; after the diet had called upon him in vain to rule according to law, and Saxon troops had marched to enforce the order of the diet. He is driven away, and his brother takes the government. In September, the Saxons force the bigoted king Anthony to declare prince Frederic, son of his brother Maximilian (who renounces his right of succession), co-regent, and to make salutary reforms. (Prince Frederic is a Protestant).—In November, Wellington's administration overthrown, and earl Grey's formed; Broughan, lord chancellor. England and Ireland in a state of great disturbance.—In November, revolution in Warsaw; Constantine flies.—In October, disturbances in Switzerland, against the aristocratic governments; in November, the Jesuits are expelled from Friburg, and in many cantons the people rise, and demand a more democratic government.—The Spanish constitutionalists, in September, attempt to enter Spain, under Mina, but are defeated; severe laws against the liberty of the press. In April, the Salic law was abolished; and in the autumn, an infanta was born to the king.—December 15, the trial of the four ministers of Charles X. (Polignac, Peyronnet, Chantelauze and Guernon de Ranville) began. The ministers condemned to perpetual imprisonment, and Polignac to civil death.—In February, prince Leopold of Saxe-Coburg is elected sovereign prince of Greece; he accepts, but afterwards refuses.—In January, Virginia adopts a new constitution. In January, Bolivar lays down his authority as supreme chief.—Violent earthquakes in Central America. A revolution, headed by general Urdanetta, at Bogota. Guatimala almost destroyed by an earthquake. Mosquera chosen president of Colombia. A treaty signed between the United States and Turkey, for the navigation of the Black sea. General Flores declares the south part of Colombia independent in May. General Sucre assassinated. Civil war at Monte Video ends. A revolution against the government at Bogota; a battle in which the insurgents are victorious. Pope Pius VIII. dies, December 7. Bolivar dies, December 17.—Persia convulsed by civil war between the sons of the shah.

1831 Reform bill introduced by Lord John Russel (March 1. Frustrated in committee. Parliament dissolved. Carried in the new house of commons (Sept. 22. Rejected by the Peers (Oct. 7). Riots at Bristol. Great meetings of reformers.—Leopold accepts the crown of Belgium. — Warsaw surrenders to the Russes. Cholera morbus breaks out at Sunderland.

1832 Reform Bill again frustrated in the house of lords. Ministers resign (May 7). Duke of Wellington attempts to form an administration; fails; Earl Grey recalled (May 18). Reform bill passed.—Hereditary peerage abolished in France.—Siege of Antwerp.—Otho of Bavaria king of Greece.—Insurrection in Paris.—Don Pedro lands at Oporto (July 9). Civil war for the possession of Portugal.—Deaths of Rev. George Crabbe, Champollion, Goethe, Clement, Cuvier, Casimer Perier, Sir James Mackintosh, Jeremy Bentham, young Napoleon and Napoleon's mother, Sir Everard Home, Baron de Zach, Sir Walter Scott, Antonio Scarpa, Sir John Leslie, Dr Spurzheim, and Jean-Baptiste Say!

1833 First reformed British parliament. — Irish Coercion bill.—Mehemet Ali's victories over the sultan.—Bill passed for abolishing slavery in the West Indies.—Admiral Napier defeats the naval force of Don Miguel. Lisbon surrenders to Don Pedro.—New charter of the bank of England. Opening of the China trade.—Irish church reform bill.—Donna Maria recognised queen of Portugal by Britain.—Great fire at Constantinople.—Unsuccessful attacks of the Miguelites on Lisbon.—Death of Ferdinand VII., king of Spain.—Return of Captain Ross from the north seas, after an absence of four years.

1834 Great earthquake in South America; the cities of Popayan and Pasto destroyed. Disturbances at Lyons and Paris.—War in Portugal between the Miguelites and Pedroites, the latter generally successful.—Many recruits for the service of Pedro volunteer from Britain; one vessel from Glasgow, with above 400 men on board, lost off the Irish coast.—The queen dowager of Spain appointed regent till the young queen Isabella II. attains the age of eighteen.—Hostilities commence in Spain between the adherents of Don Carlos and the queen.—Earl Grey resigns the premiership (July 10), and is succeeded by Lord Melbourne.—Great dinner given to Earl Grey at Edinburgh.—The Inquisition abolished in Spain.—After being five months in office, Lord Melbourne dismissed, and Sir Robert Peel called to the premiership.—Dissolution of parliament.

1835 New election and meeting of parliament.—Ministers defeated on the question of a speakership and on other questions.—Sir Robert Peel resigns.—Lord Melbourne recalled.—English municipal reform bill.—Embodying of men in Britain for the service of the queen of Spain.—Attempted assassination of the king of France.

HISTRIONES. During a dreadful pestilence in Rome, B. C. 353, after various means had been ineffectually used for appeasing the gods, it was proposed to exhibit stage-plays, which, in all antiquity, had a religious and solemn signification. In Rome, they had not, at that time, become usual; the only amusements of the warlike Romans having been the games of the circus, races, and other contests. They therefore obtained from the Etruscans (from whom they borrowed many religious rites) dancers, who performed their mimic dances to the sound of the tibia, on stages erected for the purpose. The Roman youth, delighted with this new spectacle, imitated them, and recited, at the same time, ludicrous verses. This new kind of exhibition was cultivated by native Romans, to whom the name *histriones* was given (from an Etruscan word which signifies a *dancer* or *stage-player*). They now recited comic poems (*saturæ*, satires), accompanied with action and music. But the declamation was afterwards separated from the action. Livius Andronicus, who composed the first regular comedies from these satires (in the ancient sense of that word), about 240 B. C.. and, as was then usual, acted them himself, first introduced the custom of having the recitation performed by another person, while the *histrio* endeavoured to represent the action. In the dialogue, however, the *histrio* was obliged to speak also. From this time, *histrio* became synonymous with *pantomimus*, that is, an artist who merely acts in dumb show; but the *mime* was often a mere interlude mixed with dancing. This is Livy's account (vii. 2). The actors, properly speaking, that is, those who recited the words, were distinguished from the *histriones*. Their art became so popular, that the greatest men, particularly the orators, took lessons from them. But in later times licentiousness increased so much in Rome, in consequence of their immoral representations, and so many disturbances and dangerous parties were caused by their public reception, that they were not only several times under the emperors, forbidden to appear publicly upon the stage, and limited to private representations, but they were even repeatedly expelled (for instance, under Nero) from the city, and were restrained by various laws.

HITA, Gines Perez de, was born in Murcia. He

rote a work with the following title—*Historia de
s Vandos de los Zegris y Abencerrages, Caballeros
loros de Grenada; de las civiles Guerras que hubo
e ella, y Batallas particulares que hubo en la Vega
ntre Moros y Christianos, hasta que el Rey D. Fer-
ando V. la ganó. Sacada de un Libro Arabigo,
yo Autor de Vista fué un Moro, llamado Haben
lamin, Natural de Grenada; y traducida en Cas-
llano por Ginés Perez de Hita.* It is now generally
nceded, that this work is not a translation. It
as been attacked on account of the romantic stories
contains; but it remains popular, and furnished
lorian most of the materials for his *Gonsalve de
rdoue.*

HIVE. See *Bee.*

HO (*river, canal*); a Chinese word; as, *Hoang-Ho*
ellow river); *Yu-Ho* (royal canal).

HOBART TOWN; the capital of Van Diemen's
and; on the south side of the island, in Buckingham
unty; lat. 42° 54′ S.; lon. 147° 22′ E.; on the
ght bank of the Derwent, twelve miles above its
ntrance into Sullivan's cove. It has a picturesque
tuation at the foot of Table or Wellington moun-
in, which is upwards of 4000 feet high. The town
extensive, regularly laid out, and has eleven streets,
church, a government-house, a jail, barracks, and
veral handsome brick houses, though most of the
ouses are of wood. The climate is healthy and
mperate. It is the chief town of an English settle-
ent on the Derwent, which contained, in 1818,
804 inhabitants, of whom 1348 were convicts; in
829, 5700. There were, in 1829, four newspapers
ublished in this place, and a quarterly pamphlet
lled Austral-Asiatic Review. See *Diemen's Land,
an.*

HOBBES, Thomas; a celebrated moral and poli-
cal writer and philosopher of the seventeenth cen-
ry. He was born April 5, 1588, within the
rough of Malmesbury in Wiltshire. In 1603, he
came a student of Magdalen hall, Oxford. In
610, he set out on a tour with the son of lord
ardwicke (afterwards earl of Devonshire), through
rance and Italy; and, after his return to England,
e resided several years in the Devonshire family, as
ecretary to lord Hardwicke. During this period,
obbes became acquainted with lord Bacon (some of
hose works he translated into Latin), lord Herbert
f Cherbury, and Ben Jonson. The first performance
hich he published was a translation of the history
f Thucydides. On a subsequent visit to the con-
nent, he became acquainted with Gassendi, at Paris,
nd Galileo, at Pisa. In 1637, he returned to
ngland, and resided much at Chatsworth till 1641,
hen, alarmed at the probability of political com-
otions, he went to Paris. He staid abroad some
ears, and, during that time, published most of his
orks. In 1642 first appeared his treatise *De Cive,*
terwards published in England, with the title of
hilosophical Rudiments concerning Government and
ociety, or a Dissertation concerning Man in his
veral Habitudes and Respects as a Member of
ociety, first Secular, and then Sacred. His writings
the mathematics are not important. Yet he was
nployed to teach prince Charles (afterwards Charles
.) the elements of mathematical philosophy. In 1650
as published, in London, a small treatise by Hobbes,
titled Human Nature; and another, *De Corpore
olitico,* or Elements of the Law. But the most
markable of his works is his Leviathan, or the
atter, Form, and Power of a Commonwealth, ec-
esiastical and civil (printed in London, 1651, folio).
his greatly alarmed the ecclesiastics of those days,
nd drew on the author much literary hostility.
eturning to England, he was well received by the
evonshire family, in which he passed the remainder
of his life. He continued to employ his pen on philosophical topics; and, in 1654, he published a Letter upon Liberty and Necessity. In 1658 appeared his Dissertation on Man, which completed his philosophical system, a work containing some singular notions relative to the moral and intellectual faculties of the human species. After the restoration, Hobbes was favourably received by the king, who promised him his protection, and settled on him a pension of £100 a year out of his privy purse. He was visited by Cosmo de' Medici, then prince, and afterwards duke of Tuscany, and by other foreigners of distinction. In 1666, his Leviathan was censured in parliament, and a bill was introduced into the house of commons, to provide for the punishment of atheism and profaneness, which gave him great uneasiness. On this occasion he composed a learned and ingenious work, entitled a Historical Narration concerning Heresy and the punishment thereof, to show that he was not legally chargeable with heresy in writing and publishing his Leviathan. Among the principal literary labours of his later years, were translations of Homer's Iliad and Odyssey, in verse, which passed through three editions within ten years, though utterly destitute of poetical merit. His *Decameron Physiologicum*, or Ten Dialogues of Natural Philosophy, was published in 1678; as was also a Dialogue between a Philosopher and a Student of the Common Law of England; and, in 1679, he consigned to the care of a bookseller, his Behemoth, or a History of the Civil Wars from 1640 to 1660, which did not appear till after his death. That event took place Dec. 4; 1679, at Hardwicke, a seat of the earl of Devonshire, in Derbyshire.

Few authors have encountered more opposition than the philosopher of Malmesbury. The imputation of irreligion was brought against him by his literary antagonists, and the charge has been renewed even in our own times. He has been unjustly charged with atheism; but it cannot be denied that there are few persons whose works, owing to the extraordinary abilities of the writer, and the singularity of his notions, the dogmatical manner in which they are delivered, and the agreeableness of the style, have had more influence in spreading infidelity and irreligion, though none of them are directly levelled against revealed religion. The merit of Hobbes consists in having successfully applied the inductive method of reasoning, recommended by Bacon, to the investigation of mental philosophy. In his search after truth, he is startled by no consequences to which the inquiry may lead, his object being to ascertain the boundaries of knowledge, and to show where the imperfection of human intellect renders our creed a matter of conventional authority. He admits the being of a God, but asserts that incorporeal substances are nonentities. Religion, he says, originated from the fear of power invisible, imagined by the mind of man. He also asserts the materiality and mortality of the human soul, or rather treats the distinction between soul and body as an error. He states the Pentateuch, and other sacred histories of the Jews, to be no older than the time of Ezra, and that the Christian Scriptures were not received by the church as of divine authority till the settlement of the canon by the council of Laodicea, A. D. 364. Both with respect to religion and government, he ascribes great weight to the will of the civil magistrate. And his sentiments on this point, together with his doctrine that a state of nature must be a state of perpetual hostility, in which brute force must supersede law and every other principle of action, have perhaps been most generally objected to. Yet his claim of obedience to existing authorities is qualified by the assertion that it is no longer due than

while they can afford protection to the subject. He says expressly, "*Obligatio civium erga eum qui summam habet potestatem, tandem nec diutius permanere intelligitur, quam manet potentia cives protegendi.*" The philosophy of Hobbes, so depreciated among his contemporaries, has been more or less adopted by Locke, Hartley, Hume, and Priestley. His writings are distinguished for acuteness, but contain many paradoxes. Of his several opponents, we only mention, among the moderns, Feuerbach, who wrote, in opposition to his system, his *Anti-Hobbes* (Erlangen, 1793). Hobbes was honest, kind, moderate, communicative, and of unrelaxing application.

HOBSON'S CHOICE; a proverbial expression, denoting *without an alternative*. It is said to have had its origin in the practice of Hobson, a carrier at Cambridge, who let horses to the students, and obliged his customers to take the horses in rotation, that they might be worked equally.

HOCHE, LAZARUS, general in the French revolutionary war, was born 1764, at Montreuil, near Versailles, where his father was the keeper of the king's hounds; became, when fourteen years old, a groom in the king's stables. He took service in the regiment of French guards when sixteen years old. In the daytime, he mounted guard for others, or did their work, in order to gain something to buy books, which he read during the night. At the beginning of the revolution, he immediately joined the party of the people; became a member of the municipal guard of Paris; distinguished himself by zeal and intelligence; became, in 1792, lieutenant; and studied military science with great diligence. During the siege of Thionville, he gave proofs of intrepidity and great military acquirements, and became aid-de-camp of general Leveneur, with whom, after the battle of Neerwinden and the defection of Dumouriez, he returned to Paris. His plan of operations met the approbation of the committee of public safety, and he was sent, as adjutant-general, to defend Dunkirk. Hoche inspired all by his addresses and his example, repulsed every attack of the British, and soon obtained the rank of general of brigade and division. He was not yet twenty-four years old, when he received the command of the army of the Moselle. The army was raw and inexperienced, but his military spirit immediately gave animation to the whole. His plan was to drive the enemy from Alsace; but he had the most experienced troops of all Europe, under the duke of Brunswick, opposed to him. In vain did he assault, for three days, the lines of Kaiserslautern; he was obliged to make a retrograde movement. He then directed his efforts against the Austrians on the Lower Rhine; crossed the Vosges, in spite of the bad weather and roads; defeated general Wurmser at Weissemburg, December 26; delivered Landau; took Germersheim, Spire, Worms, &c.; and drove the Austrians out of Alsace. His frankness displeased the deputy St Just, by whose means he was deprived of his command, and sent as a prisoner to Paris. The revolution of the ninth Thermidor saved him from the guillotine. In 1795, he was employed against the royalists in the west, in which capacity he displayed great ability, both as a general and as a statesman, exerting himself to pacify and not to destroy; and his efforts were crowned with unexpected success. The new committee of public safety intrusted him with the command of the armies which occupied all the country from the Somme to the Loire, and he now expected, by vigorous measures, to secure the public tranquillity; but the partial treaties concluded by the commissioners of the convention with the insurgents frustrated his plans. When hostilities were renewed, and the emigrants landed at Quiberon (June, 1795), he collected his scattered troops, and marched against them with great promptness and decision. He determined upon the assault of fort Penthièvre against the views of the council of war. The fort was taken; the royalists were driven into the sea and forced to surrender. He then wrote to the committee of public safety, to request that all the prisoners except the leaders might be spared; but the committee ordered them all to be executed. Hoche, indignant at this, put the command of Morbihan into the hands of general Lemoine, and marched, with his remaining troops, against St Malo. When the directory took the reins of government, Hoche received the command of the armies of the west, with plenary powers, for the subjection of Vendée. He laboured principally to crush Charette, the ablest and most zealous of the Vendean chiefs. Hoche took possession of all the military points of the Vendée; inspired the people of the country with confidence by the severe discipline which he kept in his army; flattered the priests; weakened and divided the royalists, and defeated them every where. Charette and Stofflet fell into his hands; quiet was restored in the Vendée; and Hoche marched towards Anjou and Brittany. Here he was equally skilful and fortunate, and succeeded in establishing tranquillity. July 16, 1796, the directory declared that Hoche and his army had deserved well of their country. Hoche now conceived the plan of exciting civil war in England, as England had so long maintained the civil war in France, and separating Ireland from Great Britain. After having overcome all the obstacles which were in the way of such an expedition, he set sail, December 15, from Brest; but a storm dispersed the fleet; he found himself alone on the coast of the enemy; and the plan failed. After his return, he received the command of the army of the Sambre and Meuse. He opened the campaign of 1797, by a bold passage over the Rhine, in the face of the enemy. In four days, he had marched with his army thirty-five leagues, had been victorious in three battles and five skirmishes, and taken Wetzlar; there the news of the armistice, concluded in Italy, stopped him in the path of victory. After having declared himself ready to lend his support to the directory, in the internal struggle in France, he suddenly died, September 15, 1797, in Wetzlar, it was supposed at the time, of poison, but this has never been proved. Hoche was born for a soldier, proud and ambitious like Cæsar, but often, also, great and magnanimous like him.

HOCHHEIM; a considerable village and bailiwic of Nassau, sixteen miles from Frankfort on the Maine. The famous Hochheimer or Hock wine, which surpasses the other Rhenish wines in spirit and softness, is made here. The English name *Hock* is a corruption of *Hochheimer*, and is often applied to all Rhenish wines.

HOCHKIRCH, or HOHKIRCH; a village in Upper Lusatia, not far from Bautzen (q. v.), rendered remarkable by the battle of October 14, 1758, in the seven years' war, in which Frederic the Great was surprised by marshal Daun, and defeated.

HOCHSTADT. See *Blenheim*.

HOCK. See *Hochheim*.

HOCKHOCKING; a river of Ohio, which rises in Fairfield county, and runs into the Ohio at Troy, twenty-five miles below Marietta. Near its source, seven miles N. E. of Lancaster, there is a romantic cascade; the water falls over a stratum of rock upwards of forty feet in perpendicular height. Twenty-five miles below, there is another perpendicular fall of seven feet. Except the interruption at the lower falls and other places by mill dams, this river is navigable for large boats seventy miles.

HOCUS POCUS; a cant term, of uncertain ety-

ology, applied to a juggle or cheat. Doctor Til-tson derives it from the form of consecrating the cramental bread in the Roman Catholic church—*c est corpus*. Junius derives it from the Welsh *ocred* (a cheat) and *poke* or *pocus* (a bag), the ggiers using a bag for conveyance.

HODITZ, ALBERT JOSEPH, count of; known for is rare talent of changing every thing around him to instruments of pleasure. He was born 1706, id married the widow of George William, margrave Bayreuth. He resided on his estate in Moravia, id converted his peasants into dancers, singers, tors, musicians, &c. There were four thousand untains in his garden. Every thing about it was nverted into an ornament. The village of Ros-ald was often celebrated in song, particularly in an pistle of Frederic II. (7th vol. *Œuvres Posthumes*). odits died 1778.

HOEST, JENS KRAGH. See *Host*.

HOF (*court* and *farm*); a German word, which ppears in very many geographical names, as *Frauen-f, Hofheim*.

HOFER, ANDREW, commander of the Tyrolese in e insurrection of 1809, during the war between ustria and France, was born, in 1767, in the inn of Leonard in Passeyr, called the *inn on the Sand*, id carried on a trade to Italy in wine and horses. 1796, when the war approached Tyrol, he led a fle company from his own country against the rench on lake Guarda. After the peace of Luné-lle, the militia of Tyrol was organized, on which casion Hofer displayed great zeal. In 1808, a rup-re between the cabinets of St Cloud and Vienna ppearing unavoidable, in consequence of events in ain, much agitation took place in Tyrol; private essengers went to Vienna, among whom was An-ew Hofer, and laid before the archduke John, mmander of the army of Austria Proper, the wishes the mountaineers. By his command, the baron of ormayr formed the plan for an insurrection, and r the occupation of those mountains, the keys of ly and Germany. Every thing prospered. Be-een the 11th and 13th of April, 1809, almost the ole country was conquered, and 8000 of the best ops of Bavaria were made prisoners by the pea-nts. April 12, Hofer forced a battalion of Bava-ns in the plain of Stertzing to surrender. His ople advanced on the Bavarian artillery with hay rts, and attacked the cavalry with pitchforks, flails, d clubs. They rolled trunks of trees and rocks wn upon their enemies, and made cannon of wood th iron hoops. Women and children were seen hting, or loading the rifles of the men. Northern d Middle Tyrol having been freed from the Bava-ns, Hofer advanced with Hormayr into the South-l, from which Baraguay d'Hilliers was driven out th great loss. Meanwhile the French, after the tory of Eckmuhl and Ratisbon, had advanced rards Vienna. The Bavarians now invaded Tyrol th great devastation. On the day of the surrender Vienna, general Chasteler suffered a defeat near rgel. He retreated to the central position of the enner, and fought his way through the enemy, ving general Buol with a small corps for the fence of Tyrol. Hofer now appeared upon the enner, and became the idol of the Tyrolese. Two ttles, fought on the 25th and 29th of May, 1809, ar the Isel mountain, in sight of the city of Inn-uck, forced the Bavarians again to leave Tyrol. the beginning of June, Hofer and his band took rt in the relief of count Leiningen, who was ieged in Trent. He was upon the point of join-; the regular troops, who were to take possession Klagenfurt, and to restore to the closely-blockaded d suffering Tyrol a communication with the interior of the imperial states, when the battle of Wagram was succeeded by the armistice of Znaim (July 12), the terms of which required that the Aus-trians should abandon Tyrol and the Vorarlberg to the vengeance of the enemy. In consequence of this, the wildest commotions arose among the for-saken people. Some of the most furious wished to retain by force general Buol and Hormayr; to seize the cannon and ammunition; to disarm those who would not join them; and to murder the prisoners. But the greatest part of the mischief was prevented. The troops withdrew, according to the conditions of the truce. Hofer concealed himself in a cave, in the valley of the Passeyr. But the enemy, who had already penetrated the Tyrol, suffered, from the 3d to the 9th of August, 1809, repeated attacks from the armed populace. Then Hofer issued from his re-treat, and appeared as the chief leader of the Tyrolese. The second battle of mount Isel (August 13) com-pelled the marshal duke of Dantzic to evacuate Tyrol. Hofer now carried on the military and civil adminis-tration, under the most singular circumstances, till the peace of Vienna was proclaimed (October 14). Among other things, he coined money with his image. The people, continually deceived by the most contradictory rumours, gave, for a long time, but little credit to the report of the peace. Several corps of the enemy had already entered the Tyrolese mountains. The people were prepared for desperate resistance, when Hofer (1st, 5th, and 8th of Novem-ber) declared his submission to the viceroy Eugene, and to the commander-in-chief of the Bavarians.

In the middle of November, misled by the false reports of some of the insurgents, he commenced hostilities anew, and thus forfeited the protection of the amnesty. He then remained concealed in an Alpine hut, in Passeyr, amidst snow and ice. For a long time, neither the golden promises, nor the threats of the French general could induce any one in these mountains to betray his place of conceal-ment. At last a priest, named Donay, formerly a confidant of Hofer, and who had been despatched by him with his submission to the viceroy at Villach, but had afterwards been offended by him, communi-cated to general Baraguay d'Hilliers the name of the man who carried food to Hoffer and his family. This man was prevailed on, partly by promises, partly by menaces of death, to serve as a guide to the troops. They discovered Hofer, Jan. 20, 1810, and carried him to Mantua, where a court-martial was held. Hofer was shot, February 20, at Mantua. He met his death with firmness. The family of Hofer was indemnified for the loss of their property by the em-peror of Austria, in 1819, and his son ennobled. See the *History of Andreas Hofer*, (Leipsic, 1817.) A life of Hofer, which was published at Innspruck, was prohibited by Austria in 1814. His body, how-ever, is now buried at Innspruck, in the splendid cathedral of the place, in consequence of the general wish of the people.

HOFFMAN, CHRISTOPHER LEWIS, a German physician and medical writer of the last century, was born at Rheda, in Westphalia, in 1721; and after having been physician to the bishop of Mun-ster, and the elector of Cologne, he, in 1787, ac-cepted the same situation with the elector of Mayence. That prince gave him the direction of the college of medicine in that city. On the suppression of the electorate, he removed to the small town of Eltviel, on the Rhine, where he died, in 1807. He distin-guished himself as a professional writer, by forming a new system of medicine, combining the nervous and humoral pathology. He admitted the sensi-bility and irritability of the solids as the basis of his system, and the corruption of the humours as a

principle of irritation. His ideas are developed in the following works:—On the Sensibility and Irritability of Diseased Parts; On the Scurvy and Syphilis; On the Medicinal Virtues of Mercury; a Treatise on the Small-Pox (2 vols. 8vo); the Magnetist (Frankfort, 1787, 4to). He also published a number of Latin dissertations, in the Memoirs of the College of Medicine at Munster.

HOFFMANN, FREDERIC, the most celebrated individual of a name and family distinguished in the annals of medicine, was born 1660, at Halle, in Saxony, where his father was an eminent physician. He studied medicine at Jena, under professor Wedelius. In 1680, he attended the chemical lectures of Caspar Cramer, at Erfurt, and, returning to Jena, took the degree of M.D. in 1681. He then gave lectures at Jena, and afterwards practised as physician at Minden. He removed to Halberstadt in 1688, to settle there as public physician; at which period he published a treatise, *De Insufficientia Acidi et Viscidi*. On the establishment of the university of Halle, Hoffmann, in 1693, was appointed primary professor of medicine and natural philosophy. He improved the spirit of medical education, promoting among the students of the university a disposition for inquiry highly favourable to the progress of knowledge. In 1718, he commenced the publication of a work entitled *Systema Medicinæ rationalis*, which was received with great approbation by the Faculty in different parts of Europe. In this system of medicine, he exhibits his peculiar theoretical opinions, the chief feature of which is the doctrine of atony and spasm, afterwards made the foundation of a medical hypothesis by Doctor John Brown. Much of the humoral pathology was retained by Hoffmann, whose speculations are chiefly important as having given an impulse to future inquiries. He made a useful collection of the most important cases which occurred to him in his practice as a physician, and published them under the title of *Medicina Consultatoria*. After a long life devoted to the cultivation of medicine, he died at Halle, in 1743. His works were collected after his death, at Geneva, 1748—1754, in nine volumes, folio.

HOFFMANN, ERNEST THEODORE AMADEUS, or, properly, ERNEST THEODORE WILLIAM, an original novelist, was born at Konigsberg, in East Prussia, Jan. 24, 1776, where he studied law. He afterwards held a judicial appointment at Berlin. He was appointed, in 1800, assessor in the government of Posen; in 1802, counsellor in the government of Ploak; and, in 1803, proceeded in the same official character to Warsaw. The invasion of the French, in 1806, finished his career in that city. Without prospects in his native country, and without property, he employed his musical knowledge as a means of support for several years. In 1816, he was reinstated as counsellor in the court of judicature of Berlin, where he died, July 24, 1822. From his youth, he devoted all his leisure hours to the study of music. Among his works are the *Phantasiestücken in Callot's Manier* (Bamberg, 1814, 4 vols.; 3d edition, Leipsic, 1825, in 2 vols.); *Die Elixire des Teufels* (Berlin, 1816); the *Nachtstücke* (2 vols. 1817); the *Serapionsbrüder* (23 tales, in 4 vols., Berlin, 1819, et seq.); and many others. Hoffmann was an irregular and unhappy man. He possessed much imagination and talent, but little soundness of mind; and his habits were intemperate. His judicial duties, however, were faithfully performed. The whole world appeared to him in the aspect of a caricature. He was able to unite the most opposite ideas. Notwithstanding his epicurism, there was something stoical in his character. Not long before his death, he asked his friend Hitsig, "Don't you still perceive the smell of roast meat?" (referring to his back having been burned by a red-hot iron in order to excite the vital powers, his disease being in the spinal marrow.) His life, by Hitsig, is very interesting. Hoffmann's works have lately been translated into French.

HOFWYL. See *Fellenberg*.

HOG (*sus*). In grossness of manners, the hog tribe stand unrivalled among quadrupeds; and their general appearance corresponds, in a great measure, with their habits. The generic characters are, four or six incisors in the upper jaw, converging; six in the lower jaw, projecting; two canines in the upper and two in the lower jaw, very long; fourteen molars in each jaw; the snout prominent, truncate, and containing a peculiar bone; feet, cloven. There is, however, said to be a remarkable variety about Upsal, which has entire hoofs. It also exists in Illyria and Sardinia; and Mascal says it formerly was to be seen in Berkshire, England. The wild boar and the common hog are identical, the differences between them arising from the long domestication of the latter; though it is probable (as is observed by Desmarest) that some of the varieties may be derived from races unknown to us; among these are the Chinese, Guinea, and Turkish.

The common hog (*S. scrofa*), in a tame state, is almost universal, except in very high latitudes. In the forests of South America, it is found in vast droves, derived from the European varieties again relapsed into a state of nature. The common hog appears to enjoy none of the senses in perfection except that of smell; this, however, is acute, and the hog is used, in some parts of Italy, in hunting for truffles, which grow some distance under the surface: and it is stated that a gamekeeper in England actually broke in a sow to find game, and to back and stand like a pointer. When she came on the cold scent of game, she slackened her trot, gradually dropped her ears and tail till she was near, and then fell on her knees. So staunch was she, that she frequently remained upwards of five minutes on her point. As soon as the game rose, she always returned to the keeper, grunting for a reward, which consisted of a sort of pudding made of barley meal. It can hear distant sounds; but its sense of hearing is by no means acute. In their taste, hogs discover a strange degree of caprice; for whilst they are singularly delicate in their choice of herbs, they will devour with voracity the most nauseous and putrid carrion. At times they even satisfy their insatiable appetite with their own young; and they have been known to attack and mangle children. The eyes of the hog are remarkably small and sunken. His form is inelegant, and his motions uncouth and unwieldy. His appearance is always slothful and stupid, and, if undisturbed, he would sleep most of the time that was not devoted to the satisfying the calls of appetite. Thus his whole life is a succession of torpor and gluttony; and, if supplied with sufficient food, it often becomes so fat as to be incapable of motion. The hog seems to be affected by the approach of stormy weather in a very extraordinary manner. On such occasions, he runs about in a restless and perturbed state, uttering loud cries. The sow brings forth in the beginning of the fifth month after conception, and has usually two litters in a year. Her offspring are very numerous, a litter consisting of from ten to even twenty; but she can bring up no more than she has teats, which are twelve in number. The mean term of the life of these animals is from fifteen to thirty years, and they continue to increase in size and strength until they are from four to five years of age. As might be supposed from their habits, they are much infested by vermin of different kinds, and are also

able to many disorders, particularly those arising om gluttony. Notwithstanding all these repugnant ualities of the hog, he is of incalculable benefit mankind. His flesh is pleasant, substantial, and utritious, particularly to persons employed in hard bour. Pork takes salt better than almost any her meat, and hence forms an important article in ilitary and naval stores. The lard of the hog is ed in a variety of preparations, and the bristles are ed in large quantities, in the manufacture of ushes, whilst the skin is in equal demand among e saddlers. In Minorca, it is said that the hog is ed as a beast of draught.

The wild boar, from which most of our domesti- ted varieties are derived, is found in most parts of urope and Asia, and is by no means so stupid or thy an animal as the tame hog. His snout is nger, his ears shorter; he roots up the ground in a fferent manner, ploughing it up in furrows; his sks are larger, some of them being ten inches in ngth, bent circularly, and exceedingly sharp at the oints. The wild boar, for the first three years of s life, follows the sow, the whole litter living in a erd together. This appears to be for the purpose mutual protection against their enemies; for when tacked, they give each other assistance, the strongest cing the danger. When the boar, however, has tained his full size and strength, he ranges the rest alone and unsupported, dreading no single eature, not even man himself. Hunting this imal has always been a favourite amusement. The gs used in this sport are of the slow, heavy kind, ually a kind of small mastiff. When the boar is oused, he goes slowly and uniformly forward, equently stopping and facing his pursuers, often flicting severe and even mortal wounds. He is at st despatched by the hunters, either with fire-arms strong pikes, termed *boar spears*. A chase sel- om terminates without the maiming or destruction some of the dogs.

The domesticated varieties of the hog are exceed- gly numerous. A mere enumeration of them ould swell this article beyond its due limits. We all therefore only notice the most remarkable, at e head of which stands the *Chinese* or *Siam*; this is stinguished by having the upper part of its dy almost bare, its belly hanging nearly to the round; its legs very short. Its general colour is a rk gray. The flesh of this variety is peculiarly hite and delicate. This animal and its sub-varieties cur in China, and are also diffused through almost l the islands of the South seas, where they form the rincipal animal food of the inhabitants. They are d on the bread-fruit, either in its natural state or made to a sour paste, yams, &c. This nutriment renders e flesh juicy and delicious. These animals are also nsidered as the most acceptable offering that can presented to the gods.

Guinea hog (*sus porcus*, Gm.). In this variety the ead is small; the ears long, thin, and pointed; the il long, naked, almost reaching the ground; the air on the body is short, reddish, shining, and softer an in the other varieties; the back is nearly naked. his animal is common on the Gold coast, and it is lso said to have been naturalized in Brazil.

Babyroussa (*sus babyroussa*). This is a gregarious imal, and is found in large herds in Java, Amboyna, c., but not on the continent of Asia. The baby- oussa is about the size of a large hog, but has much nger legs. What chiefly distinguishes it are the ze and shape of its tusks; those in the lower jaw e similar to the tusks of the rest of the genus, but ose in the upper are placed on the external surface the jaw, perforating the skin of the snout, and rning upwards towards the forehead, being twelve inches in length, of a fine, hard grain, like ivory. As the animal advances in age, they become so long and curved as to nearly touch the forehead. The ears are small, erect, and pointed. A few weak bristles cover the back; the rest of the body is covered with a short, fine, and somewhat woolly hair, of a deep brown or blackish colour. The voice of the babyroussa is very similar to that of the common hog, but it is a much more silent animal. Their usual food is the leaves of the banana and other vegetables, but they do not dig for roots as the other species do. They are readily tamed, and their flesh is well tasted. Like the rest of the genus, they swim with great facility; in fact when closely pursued, it is said they will plunge into the sea and swim to a considerable distance, often diving. Travellers relate (though we are sceptical as to the fact) that the babyroussa is often seen to rest its head, when sleeping, by hooking its curved tusks over the bough of a bush.

HOGARTH, WILLIAM, a truly great and original painter of life and manners, was born in the parish of St Martins, Ludgate, in 1697 or 1698. His father, who was the son of a yeoman in the neighbourhood of Kendal in Westmoreland, kept a school in the city. Hogarth was bound apprentice to Mr Ellis Gamble, a respectable silversmith of Cranbourne street, Leicester fields, who employed him in engraving ciphers and crests on spoons and pieces of plate. Having been accidentally present at a drunken fray one Sunday at a public house on the road to Highgate, his humour in sketching characters was first displayed by his drawing one of the unfortunate combatants streaming with blood. Soon after he produced a print of Wanstead assembly. In 1720 he commenced business for himself, painting portraits, and making designs and book plates for the booksellers. Mr Bowles, at the Black Horse, Cornhill, was one of his earliest patrons, but paid him very low prices. Mr Philip Overton, however, who next employed him, rewarded him better. For these two persons he designed and engraved plates for La Motraye's Travels —The golden ass of Apuleius—Beaver's military punishments of the ancients—Cassandra—Butler's Hudibras,—Perseus and Andromeda, &c. &c. He also painted small groups or family pieces, for which he was very inadequately remunerated, and had sometimes much difficulty in procuring any payment after his pictures were finished. As an instance, it is related, that a very ugly and deformed nobleman having sat to him, the likeness produced was so strong that his sitter refused to have it, and Hogarth, after several pressing letters for payment, at length told him, that if he did not send the money for it, he should add a tail, and some other appendages, and sell it to Mr Hare, a famous wild-beast man, who had applied to have it to hang up over his booth. This stratagem had the desired effect; Hogarth received the money, and the nobleman put the picture in the fire. In 1726, the affair of Mary Toft, the rabbit breeder, happened, and Hogarth was employed by some of the medical men in London to produce a picture on the subject, which he engraved. In 1727, he was obliged to prosecute one Morris an upholsterer, who had commissioned him to paint a picture, which he also refused to have when finished, but here again Hogarth was successful. In 1730, Hogarth was secretly married to the only daughter of Sir James Thornhill, and soon after commenced his celebrated series of pictures, called the Harlot's Progress. In the year 1733, this work brought his great powers fairly before the public, for at a meeting of the board of treasury, one of the members carried the third print, just then published, and showed it to the other members, as containing, among other excellencies, a striking likeness of Sir

John Gonson, and on the board's breaking up, all the members went and purchased impressions. Such was now the great sale and popularity of his works that they were copied and pirated, and he was in consequence obliged to apply to parliament for a protecting act, to secure to artists the fruits of their industry, as had been already granted to authors. Some notion may be formed of the hold the Harlot's Progress took of the public mind, by the fact that it was converted into a pantomime and a ballad opera, and represented on the stage. The scenes were also engraved in a small size, to adorn the fans of ladies of rank and fashion. In 1745 he issued proposals for an auction of his original pictures, to commence on the first day of February, and to remain open to bidders for the whole month, the book to be closed on the 28th February at 12 o'clock, when the prices were declared as follows:—

	£	s.
The six pictures of "Harlot's Progress,"	88	4
Eight pictures of "Rake's Progress,"	184	16
Morning,	21	
Noon,	38	17
Evening,	39	18
Night,	27	6
Strolling players dressing in a barn,	27	6

The same year his prints of Marriage a la mode appeared, which were very successful. But as it had been observed by his detractors, that he only painted the dark side of human nature, he commenced a set of designs for a work to be called the Happy Marriage, which however he never finished. In 1749, having paid a visit to France, he was arrested at Calais, while sketching the gate of the town, and on his return he commemorated the affair in his excellent print, "O the Roast Beef of Old England." He now purchased a small house at Chiswick, where he chiefly resided, going occasionally to his house in Leicester fields. In 1753 his work on the Analysis of Beauty appeared; in writing which he was assisted successively by Dr Benjamin Hoadley the physician, Mr Ralph, by Dr Morell, who finished it, and the Reverend Mr Townley, who wrote the preface. This work was translated into German in 1754, and into Italian at Leghorn in 1761.

In 1762 his health began to give way. He complained much of an inward pain, which was followed by a general decay. The last year of his life, he spent chiefly at Chiswick in retouching his plates; in which labour he was assisted by several other engravers. On October 25, 1764, he was so seriously indisposed that he was removed at his own request to his house in London, where he was immediately put to bed, but, being seized with a violent vomiting, he rung his bell loudly, the bell rope broke, and he soon afterwards fell back and expired. It was then ascertained that his illness had been caused by an aneurism of the great artery.

Hogarth had one failing in common with most people who attain great wealth and eminence without the advantages of a liberal education. He affected to despise every kind of knowledge which he did not possess, and having been very rarely admitted into polite circles, he continued to the last a very gross and uncultivated man. He was also subject to violent bursts of rage upon receiving the smallest contradiction; so that altogether he was far from being an acceptable member of society on any account, except on the score of his talents. He was, besides, exceedingly self-conceited and vain, and very subject to fits of absence of mind, of both which tendencies many extraordinary instances are related by his biographers.

In originality of imagination, Hogarth may be placed on an equality with Shakspeare, and in point of execution as a painter he is superior to most artists of the age in which he lived. His genius is at all times enlisted on the side of virtue and morality. He holds the mirror up to nature, and "through the eye corrects the heart." He exhibits vice in all its deformity; villany is stript of its cloak, and held up to detestation. There are irresistible power and pathos in the successive scenes of his works. You see his heroes advancing step by step in their career of wickedness; you know where it must end, yet the "last scene of all" seldom fails to overwhelm you with feelings of the most poignant sorrow.

The works of Hogarth have been frequently republished. A very beautiful small edition by Major, and two others on a more enlarged scale, are now (1835) in course of publication. His own portrait, painted by himself, with his favourite pug dog, and his six pictures of Marriage a la mode, are now placed in the National Gallery. His four pictures of the election, were lately in the possession of the widow of his friend Mr Garrick.

A catalogue of all his prints will be found in the fourth volume of Walpole's Anecdotes. A multiplicity of local and temporary circumstances introduced into his pictures, has rendered notes necessary to a due comprehension of them—a task which has been well performed in the Hogarth Illustrated of Ireland. In the French translation of the Analysis of Beauty, by Jansen (Paris, 1825, 2 vols.), is a useful *Notice chronologique, historique et critique de tous les Ouvrages de Peinture et de Gravure de Mr Hogarth.* A distinguished German writer (Lichtenberg) has published Illustrations of Hogarth, in six volumes, with engravings (Gottingen, 1796), which are full of wit and fine observations.

HOHENLINDEN; a village of Bavaria, six leagues from Munich, celebrated for the victory gained by the French, under Moreau, over the Austrians, December 3, 1800. The French took 80 pieces of cannon, 200 caissons, 10,000 prisoners, with three general officers. Preliminaries of peace were soon after signed at the same place.

HOHENLOHE; one of the mediatised principalities of Germany, containing 620 square miles, with 90,000 inhabitants, partly under the sovereignty of Wurtemberg, partly under that of Bavaria. Besides this, the princes of Hohenlohe have considerable possessions. The house of Hohenlohe is descended from Eberhard, duke of the Franks, brother to the German king, Conrad I. (died 918).

HOHENLOHE-INGELFINGEN, Frederic Louis, prince of; born in 1746; a general in the Prussian service, in the campaign of 1806. In the war against the French, in 1792, he commanded a division, and, in 1793, fought with distinction in the battles of Oppenheim, Pirmasens and Hornbach, and had a share, in the forcing of the lines at Weissenburg. In 1794, he gained a victory at Kaiserslautern, and received the command of the line of neutrality on the Ems. In 1804, he was made governor of the principality of Franconia, and commandant of Breslau. When, in 1805, the Prussian army approached Franconia, the prince commanded a corps between the Saale and the Thuringian forest, and, in the war of 1806, led the army, whose advanced guard, under prince Louis Ferdinand, suffered a defeat at Saalfeld, October 10. After the battle of Jena, October 14, he directed the retreat, and led the remnants of the great Prussian army, which had collected under him at Magdeburg to the Oder. But the distance of the camp of general Blucher prevented him from joining the prince. Destitute of cavalry, and unable with his infantry, exhausted by fatigue, to engage with a superior enemy, he thought himself authorised to surrender, with 17,000 men, at Prenslau, October 28, 1806. He died February 15, 1818.

HOHENSTAUFEN. In the battle of Mersburg (1080), between the emperor Henry IV. and his com-

etitor, Rodolph of Suabia, Frederic of Staufen, lord f Hohenstaufen, in Suabia, not far from Goppingen, isplayed so much courage, under the eyes of the mperor, that he was rewarded with the duchy of uabia, and received Agnes, daughter of Henry, in arriage. Thus was laid the foundation of the future reatness of a house whose elevation and fall are mong the most important epochs in the history of he German empire. Frederic (died 1105) left two ons, Frederic and Conrad; the elder succeeded him s duke of Suabia, and the younger was invested 1116) by his uncle, the emperor Henry V., with the ew duchy of Franconia. After the death of the mperor Henry V. (July 23, 1125), who was the last ale of the Franconian line, his two nephews, rederic II. (the one-eyed), duke of Suabia, and onrad, duke of Franconia, appear to have aspired the German crown; but their connexion with the te emperor was made the ground of opposition by he directors of the election, the archbishop of Ments nd the legate of the pope; and the election of othaire of Saxony took place 1125. This circumance, with the demand, made by the new emperor, f the restitution of all the possessions acquired by he lords of Hohenstaufen during the preceding reign, roduced a fierce war between the emperor and the wo brothers. Lothaire would have been overpowered this contest, had he not preserved himself by a nion with Henry the Proud, duke of Bavaria, to hom he gave his daughter and the duchy of Saxony. rederic II. was unable to withstand the overwhelmng power of both, since his brother Conrad, after his eturn from the Holy Land, had undertaken a campaign to Italy, where he had caused himself (1123) be proclaimed king. The peace of Muhlhausen 1135), between Lothaire and Conrad, put an end to his ten years' war. Conrad renounced his title of ing of Italy, but received the first rank among the ukes, and both he and his brother regained all their nds. After Lothaire's death (1137), Conrad, duke f Franconia, of the house of Hohenstaufen, was aised to the throne of Germany, being chosen Feb. 2, 1138, and crowned March 6 of the same year. he archbishop Adelbert of Treves, and the legate f the pope, cardinal Theodoin, accomplished this ork; for the politic and skilful Conrad had succeeded, during Lothaire's reign, in gaining the favour f the church, and he appeared to all less dangerous han his rival, Henry the Proud, duke of Saxony and Bavaria, whose power was formidable. The inextinguishable hatred of the Guelphs (q. v.) against the ouse of Hohenstaufen (Ghibelines), the first germ of hich lay in the alliance between duke Henry and he emperor Lothaire, was still more inflamed by the mperor Conrad III. placing Henry the Proud under he ban, depriving him of his feudal possessions, and therwise injuring him, because he refused to obey is order to relinquish the duchy of Saxony and Tuscany, and some other Italian possessions, it being ontrary to the German constitution for a prince to old two duchies. The contest produced by this imerial sentence, which brought so many sufferings on ermany and Italy, lasted for more than 300 years. fter the death of Conrad III. (February 15, 1152), he confidence which was felt in the Hohenstaufen mily caused the choice to fall on his nephew, Frederic III., of Suabia, son of Frederic II., (the oneyed), called, among the German kings, Frederic I. q. v.), (Barbarossa) the red-beard. Frederic I. had xcited the jealousy of the pope by his increasing ower in Italy. This was the true cause of the ailure of the exertions of his son and successor, Henry VI., to make the German crown hereditary in is family, so that he was scarcely able to have his on Frederic, two years of age, declared his successor (1169). After the death of Henry VI. (1197), Philip, duke of Suabia, was named regent of the empire, during the minority of Frederic, his nephew, who was acknowledged king; and the pope was powerful enough to set up in opposition to him, first Berthold, duke of Zahringen, and then Otho, second son of duke Henry the Lion, who, by the gift of his uncle, king Richard of England, had become lord of the French county of Poitou. The murder of Philip, by Otho, count of Wittelsbach (June 21, 1208), secured to Otho IV., for some years, the entire government; but, when he wished to make good his imperial rights in Italy, he excited the anger of pope Innocent III. to such a degree that he took under his protection Frederic, the young king of Sicily (against whom Otho was carrying on war), laid the emperor under an interdict, and raised up a powerful party in Germany against him. King Frederic now went to Germany, caused himself to be crowned at Aix-la-Chapelle, and, after the defeat of Otho IV. at Bovines, (1214), became sole ruler, under the title of emperor Frederic II. (Otho IV. died May 19, 1218). During his lifetime, Frederic had his second son, Conrad, chosen king of the Romans (1237), after his eldest son, Henry (who died in prison, 1242), had rendered himself ineligible to his dignity, by rebelling against his father. Conrad IV., after the death of his father (1250), was acknowledged as king by most of the states of the empire; but Innocent IV. laid him under an interdict, declared him stripped of all his lands, and persecuted him with relentless hatred; but Conrad, who had many personal friends in Germany, kept in check William of Holland, the opposite candidate, defeated the army of the pope, and was about to advance into Lombardy, when he died, in his camp, at Lavello (1254), as is thought, from poison, administered to him by his illegitimate brother, Manfred. After the death of Conrad IV. this Manfred possessed himself of the crown of Sicily; but he lost his life and his crown in a battle, and Charles of Anjou was crowned by the pope (1266) king of Naples and Sicily. The severe and cruel government of Charles raised up a powerful party against him; their love for the noble house of Hohenstaufen was awakened, and Conradin (q. v.), the only son of Conrad IV., was called from Bavaria, where he had hitherto lived, in order to ascend his rightful throne. In order to raise money to defray the expenses of a campaign in Italy, Conradin pledged several castles and other possessions for 2200 marks of silver; went to Italy at the head of his army, accompanied by his friend, the young prince Frederic of Baden; defeated the usurper Charles, August 23, 1268, but had the misfortune, while pursuing the enemy too warmly, to be taken prisoner, together with Frederic and several German princes. Charles had him, together with his attendants, publicly executed at Naples, October 29, 1268. Thus perished the last Hohenstaufen. The possessions of the family fell to Bavaria, Baden, and Wurtemberg; the ducal dignity in Suabia and Franconia ceased, and the title of duke of Franconia alone went to the bishop of Wurtsburg. The fame of the family of Hohenstaufen is rendered imperishable by the political greatness to which the Frederics, in particular, attained, by means of their wisdom, virtue, and power, by their struggles to free Germany from the dominion of the pope, by the order which they introduced into all the states of the empire, by the encouragement which they gave to commerce and trade, and likewise by their unwearied care to promote the sciences and arts. They particularly patronised history and poetry. How much they valued history is apparent from the letter of Frederic I., in which he invited his uncle Otho, bishop of Freysingen, to be his historiographer. Both Frederics

merit lasting honour for their administration of justice, and the rectitude with which they allowed the rights of their subjects, even against the throne itself. Astronomy, astrology, physical science, philosophy, geography, and particularly poetry, were favourite pursuits of the Frederics, even in the midst of public business and the tumult of arms; and very favourable effects followed, from the close alliance between the German poets and the minstrels of Naples and Sicily, after those states had come into the possession of the family of Hohenstaufen. Frederic II., who first published the decrees of the diet in the German language, erected schools for the Minnesingers, and passed a law for the protection of the students in their journeys to the universities. See Frederic von Raumer's excellent *History of the Hohenstaufen and their Times*, 6 vols., with twelve engravings and maps, Leipsic, 1823.

HOHENSTAUFEN; a high mountain in the kingdom of Wurtemberg, between Gmund and Goppingen, the original residence of the famous German family which bears its name. It rises in the form of a pyramid, above the chain of hills which extends between the Fils and the Rems. On its southern declivity is a small market-town of the same name. The castle of Hohenstaufen was burnt by the insurgents, in the peasants' war (1525). Nothing of the ruins is now discernible, but a few feet of a low wall.

HOHENZOLLERN-HECHINGEN, AND HOHENZOLLERN-SIGMARINGEN; two sovereign principalities of the Germanic confederation. The most remote known ancestor of this family was Thassilo, count of Zollern (died about 800). His descendant in the eighth generation was Robert II., count of Zollern, who lived in 1165, and had two sons, Frederic IV. and Conrad. The latter became burgrave of Nuremberg, in 1200, and his grand-nephew, Frederic III., was made, in 1277, a prince, and received the burgraveship as a hereditary fief. From him the royal Prussian dynasty is descended. See *Prussia*.

HOLBACH, PAUL THYRY, baron of, member of the academies of Petersburg, Manheim, and Berlin, was born at Heidelsheim in the Palatinate, in 1723. He was educated in Paris, where he passed the greater part of his life, and died in 1789. He was distinguished for his love of the arts, and was eminent as a mineralogist; he has been represented in general as benevolent, amiable, and even-tempered, but the irritable Jean-Jacques complains of his rudeness. He was the centre of a circle of men of wit, but of the *nouvelle philosophie*, using his great fortune, says Rousseau, generously, and appearing to advantage in the learned society which he gathered round his table. His guests were in general *philosophes* of too free a turn of thinking to be admitted to the dinners of madame Geoffrin, and Marmontel declares that God, virtue, and morality were never discussed there. He was the author of a great number of works, most of which were anonymous or pseudonymous. He contributed many papers on natural history, politics, and philosophy to the *Encyclopédie;* he also translated a German work of Waller on Mineralogy, Akenside's Pleasures of Imagination, some essays of Tindal, Hume, &c. His principal work, which appeared under the name of M. Mirabaud, and which excited much attention in the learned world, is the *Système de la Nature*. Voltaire characterises it as execrable in morality, and absurd in physics, and Frederic the Great undertook to refute it. According to Holbach, matter is the only form of existence, and every thing is the effect of a blind necessity; instead of God, whom he asserts to have been invented by theologians, he substitutes Nature, which he considers an assemblage of all beings and their motions. The *Eléments de la Morale universelle* (1790) contains the same principles.

HOLBEIN, HANS, OR JOHN; the son of a painter at Basle, in Switzerland, who, being instructed by his father in the rudiments of the art, soon rose to great eminence in his profession. The year of his birth has been variously fixed, by Patin in 1495, but by others in 1498, which latter is the era more generally received. His talents procured him the acquaintance and even the friendship of Erasmus, in spite of his rough and dissolute habits, which that philosopher exerted himself much to correct. His advice, and the wish to escape from the consequences of an unfortunate marriage, induced the young artist to set out for England, whither he had been invited most pressingly by one of the nobility. His finances were so low at the time, that he found the greatest difficulty in reaching this country; where, when he arrived, he had forgotten the name of his promised patron. Fortunately, however, the features of the peer were yet fresh in his recollection, and a striking resemblance of him, which he produced, enabled him to discover his name. Letters from his friend Erasmus, whose Panegyric on Folly he had illustrated by a series of drawings, procured him subsequently the patronage of the chancellor Sir Thomas More, who took him into his own house, employed him to delineate the portraits of most of his own personal friends about the court, and introduced him to the notice of Henry VIII., who, with all his faults was a liberal encourager of the fine arts. At the command of this monarch, Holbein drew the portrait of the dowager duchess of Milan, whom Henry entertained thoughts of espousing; also that of Anne of Cleves, the original of which was afterwards considered, by his fastidious patron, so far inferior, in point of beauty, to her picture, that his disgust was expressed in terms less courtly than sincere. Holbein also painted most of the principal English nobility, who showed themselves eager to encourage an artist ranking so high in the favour of Henry. These portraits are still considered masterpieces of art. Some of his earlier productions, especially his Dance of Death, are also very celebrated, and have perhaps contributed as much to his reputation as his later productions. The capricious prince whom he served, however fickle towards others, was constant in the protection which he afforded to him, and was so sensible of his value, that a memorable saying of his is recorded, on the occasion of some complaint made against this artist by a court butterfly: "I can, if I please, make seven lords of seven ploughmen; but I cannot make one Holbein even of seven lords." Holbein died at Whitehall, of the plague, in 1554. He excelled in wood engraving, and, before his visit to England had produced a large number of wood cuts. Several of his historical paintings were engraved in wood by him; among others, his Dance of Death. The best edition of his series of ninety small wood cuts, illustrative of the New Testament, is that of Lyons, 1539, very rare. See Fusell's *History of the best Artists of Switzerland*.

HOLBERG, LOUIS, baron of, the father of modern Danish literature, and a popular writer in the same sense as Cervantes in Spain, Molière in France, and Shakspeare in England, was born, (1684) at Bergen, in Norway, and early lost his father, who had raised himself, by a bold achievement, from the rank of a common soldier to the office of colonel. Little care was taken in forming his mind and character. In 1702, he studied theology and the foreign languages at Copenhagen, and afterwards became an instructer. The perusal of the accounts of travellers excited in him a great desire of visiting other countries. Notwith-

landing his straitened circumstances, he went first to Amsterdam, then to England, Germany, France, and Italy. He then resided at Copenhagen two years, as a teacher of languages. In 1718, he received the chair of metaphysics; 1720, he became assessor of the consistory and professor of eloquence. Holberg had hitherto devoted himself to the study of jurisprudence, history, and the languages; and, until his thirtieth year, he had written no poetry. At that time, he attempted a satire, in which he took Juvenal as his model. This attempt was successful, and he now wrote his great comic-heroic poem, in iambics, the *Peder Paars*. Holberg laid the foundation of his fame by this national satire. It has been translated into several languages. An accident having induced him to write for the stage, he here found a proper field for his talents. He wrote with much ease, and in quick succession, twenty-four comedies, all of which were received with great favour, and which constitute him the founder of the comic theatre of Denmark. The strong, lively wit, the native humour, and the original characters in his comedies, secure to him an elevated place among the small number of genuine comic writers among the moderns. Their genuine comic character has induced Baggesen, one of the poets of Denmark, to undertake to adapt the language to the present state of the Danish tongue. His satirical and humorous romance, Nicholas Klimm's Subterraneous Travels, in the Latin language, translated into seven languages shortly after it appeared, and into Danish by Baggesen (1789), has also contributed to his fame. His Epistles, Fables, and Epigrams are highly valued; not less so are his historical works, which he wrote under Christian VI., who was not very favourable to poetry. Still Holberg acquired fame and riches, and was elevated by the king to the rank of baron (1747). He died 1754, and left the greatest part of his property to the seminary of young noblemen at Soroe. Holberg was lively and refined in his wit. He was extremely temperate, and dressed with much care. He was fond of the society of women, but was never married; he considered their conversation more striking and natural than that of men. His comedies, translated into German by Œhlenschlager, appeared at Leipsic in 1822. Professor Rahbeck has edited an edition of Holberg's Miscellaneous Writings, in twenty-one volumes, and also the latest edition of Holberg's Comedies, in six volumes (Copenhagen, 1826).

HOLCROFT, Thomas, a dramatist, novelist, and miscellaneous writer, born in 1744. His father was a shoemaker, and the son followed the same occupation, which he relinquished when young, to try his fortune on the stage. His scheme did not succeed, and he then turned his attention to dramatic composition, and produced several pieces, of which the popular is the Road to Ruin (1792), still frequently performed. On the occurrence of the French revolution, Holcroft displayed much zeal in the cause of liberty; and his conduct, with that of other individuals, having excited the alarm of government, he was included in the famous prosecution for treason, instituted against Hardy, Horne Tooke, Thelwall, and others, in 1794. The persons just mentioned having been acquitted, Holcroft and the rest were discharged without being brought to trial. He continued to write for the stage with great assiduity, and published a multitude of works, original and translated, among the former of which were some clever novels. His last publication was a Tour in Germany and France (2 vols. 4to). He died in 1809. Holcroft is stated to have been the first who introduced on the English stage those since popular entertainments termed *melodramas*. He possessed strong natural abilities, and, considering that he was self-taught, his attainments were very considerable. His translations are from the French and German languages.

HOLD; the whole interior cavity or belly of a ship, or all that part of her inside which is comprehended between the floor and the lower deck, throughout her length. This capacious apartment usually contains the ballast, provisions, and stores of a ship of war, and the principal part of the cargo in a merchantman; in the former, it is divided into several apartments (by bulk-heads), which are denominated according to the articles which they contain, as the *fish-room*, the *spirit-room*, the *magazine*, the *bread-room*, &c.

The *after hold* is that which lies abaft the main-mast, and is usually set apart for the stowage of the provisions in ships of war.

The *fore hold* denotes that part of the hold which is situated in the fore part of the ship, or about the fore hatchway. It is usually in continuation with the main hold, and serves the same purposes.

The *main hold*; that part which is just before the main-mast, and which generally contains the fresh water and beer, for the use of the ship's company.

HOLE, Black, at Calcutta, denotes a place of confinement, eighteen feet by eighteen feet, containing 324 square feet, in which 146 persons were shut up, when fort William was taken, in 1756, by Surajah Dowla, nabob of Bengal. The room afforded for each person a space of twenty-six and a half inches by twelve inches, which was just enough to hold them, without pressing violently upon each other. To this dungeon there was only one small grated window, and, the weather being very sultry, the air within could neither circulate nor be changed. In less than an hour, many of the unhappy people were seised with extreme difficulty of breathing, several were delirious, and the place was filled with incoherent ravings and exclamations of distress, in which the cry for water was predominant. This was handed to them by the sentinels, but had no effect to allay their thirst. In less than four hours, many were suffocated, or died in violent deliriums. In an hour more, the survivors, except those at the grate, were, in the highest degree, frantic and outrageous. At length those at the grate became insensible, so that we have no account of what happened till they were released at six o'clock in the morning, having been confined from seven at night. Such were the effects of animal effluvia, in a close and unventilated place, in the space of eleven hours, that out of 146 persons, not more than twenty-three came out alive, and those in a high putrid fever, from which, however, by fresh air and proper attention, they gradually recovered. Mr Holwell, who commanded in fort William at the time when it was taken, and was one of the sufferers in the black hole, published an interesting Narrative of the sufferings endured in the Black Hole of Calcutta.

HOLIBUT (*pleuronectes hippoglossus*). This large and excellent fish is sometimes upwards of 300 pounds in weight. The colour above is of an obscure green, bordering upon black; that of the belly, a pure white. The scales are small, and the body free from spines: even the edges of the fins have no asperity from the projection of the rays. The eyes are on the right side of the animal. It is brought to the markets of the United States very plentifully in the spring. From its large size, it is usually cut up and sold piece-meal. The head, fins, and flap, are considered as the most savoury parts. It usually makes its appearance with the shad and herring, or about the end of March and beginning of April. It is taken on the Nantucket shoals, and sometimes as far south as Sandy Hook, before the

water loses its wintry coldness. As the temperature increases, these fish change their ground, and migrate to the banks of Newfoundland. The bait used in taking them is small herring.

HOLINSHED, or HOLINGSHED, RAPHAEL; an English chronicler, of the age of queen Elizabeth. He has been represented as a clergyman, and bishop Tanner farther states that he was educated at Cambridge, and took the degree of M. A. there in 1544. But doctor Farmer, in his Essay on the Learning of Shakspeare, has corrected this mistake, having ascertained that the graduate was one Ottewall Holingshed, who was subsequently nominated by the founder one of the first fellows of Trinity college. From the will of the historian, preserved by Hearne, it appears that at the close of his life he was a steward or servant to Thomas Burdet, esquire, of Bromcote, in Warwickshire. His death took place about 1582. The Chronicles of Holinshed were first published in two vols., folio (1577); and a second edition, in three vols., in 1587. Several individuals were concerned in the compilation of this work. In 1807, a new edition of it appeared, in six vols., 4to, in which the omissions, chiefly from the preceding impression of the third volume, were restored. They principally relate to the history of lord Cobham and the earl of Leicester, during the reign of Elizabeth, to whom the passages in question appeared offensive. Prefixed to the Chronicles is one of the most curious and interesting memorials existing of the manners and domestic history of the English in the sixteenth century.

HOLCAR; a Mahratta chief, distinguished in the wars of the British in India. See *Mahrattas*.

HOLLAND, (originally *Hollow Land*) a kingdom of Europe, formed partly of islands, but principally of that portion of the Continent where the Rhine by several mouths enters the German ocean. It was the principal of the seven provinces of the Netherlands, which revolted against Philip II. of Spain, and, after a long struggle, formed an independent federal republic under a stadtholder. Hence the name of this province was extended to the whole state. Holland proper consists of a peninsula washed by the German ocean on the N. and W., and by the Zuyder-Zee on the E., while on the S. E. it is bounded by Utrecht, and S. by Brabant and the Meuse. The following are the chief towns: Amsterdam, Rotterdam, Hague, Leyden, Haarlem, Dort, Delft, Gouda, Alkmaar, Hoorn. The national religion is Calvinism; but there is a Lutheran congregation in every town of consequence; and among the lower classes the Catholics are numerous. The whole kingdom of Holland is a continued flat, and lies so low as to be under the level of the sea at high water; the tide is prevented from flowing in by means of dikes and natural sand-banks. The numerous canals and ditches which traverse it in all directions, are likewise provided with dikes, and serve not only to promote internal communication, but to drain the country of superfluous water. In addition to the two great rivers which water this province in common with the rest of the Netherlands, viz., the Rhine and the Maese, Holland has several smaller rivers, the Amstel, the Schie, the Rotte; but they have so little current as to be more properly canals, or watercourses. The principal lake is that of Haarlem. The soil is in general rich, consisting of a deep, fat loam. From the humidity of both soil and climate, there is little of the province under tillage, and that little is in South Holland. The crops principally cultivated are wheat, madder, tobacco, hemp, and flax. The agricultural wealth of the province at large, consists in its pastures, which are almost unrivalled in the abundance and luxuriance of the grass which they produce. The manufactures of Holland, though no longer extensive, embrace a variety of articles, viz., linen, woollen, and leather; also paper, wax, refined sugar, starch, and, in certain districts, pottery, and tiles. Large quantities of gin are likewise made, particularly at Schiedam, near the Maese. Population of Holland in 1832 (according to the Almanac de Gotha) 2,444,550. Standing army 60,000; navy, sixteen men of war and twenty frigates.

Under the article *Belgium*, a full account is given of the revolution of 1830, by which a separation was effected between that kingdom and Holland. The *history, statistics*, &c., of *Holland* are so interwoven with that of the *Netherlands* generally, that, for the sake of obtaining a comprehensive and satisfactory view of the subject, we defer entering upon it until we reach that article. See *Netherlands*.

HOLLAND, NEW; an island in the south Pacific ocean, the largest in the world, and long supposed to form a part of a great southern continent. It stretches from east to west nearly 2000 miles, and it is 1700 miles in breadth. It lies between 9° and 38° of south latitude, and 112° and 153° east longitude. The country was first discovered by the Dutch, in 1605, and was visited, in 1616, by Dirk Hartag, who commemorated his visit in a plate of tin left by him, which was found by some British navigators, in 1801. It was occasionally visited by the Dutch navigators till the end of the century. It was visited by captain Cook, in 1770, and was determined by him to be an island. It was afterwards visited by captain Furneaux, in 1773; by Vancouver, in 1791; by the French navigator Bruny d'Entrecasteaux, and, in 1795—1799, by Bas and Flinders. In 1801, captain Flinders surveyed its coasts; and, in 1818 and 1824, captain King completed what had been left undone by his predecessors. Very little is known of the interior of this vast country. The principal animal and vegetable productions have been described under the head of *Australia*. On the north coast lies the gulf of Carpentaria, 400 miles deep and 300 broad. From cape Wessel, the north-west head of the gulf, to cape Van Diemen, the country is called *Arnheim's Land*. The coast here is low, containing many fine ports and harbours. Liverpool river empties into the sea on this coast. What on the old maps is called *Van Diemen's bay*, was found by captain King to be a strait, seventy miles long, and forty broad, separating two large islands from the main land, called *Melville* and *Bathurst islands*; the former is 200 miles, the latter 150 miles, in circumference. The northern coast, with these islands, is now included in the British territory (formal possession of the country between 129° and 136° E. longitude having been taken in 1834). A colony was founded at Port Cockburn, on Melville island, at the mouth of Apsley strait, which separates the two islands. To the west of this point, the coast trends to the south, and is low and sterile as far as Cambridge gulf, in 128° E. longitude; westward from the gulf, the coast is intersected by numerous bays, ports, and some rivers, one of which, Prince Regent's river, is of considerable size. The remainder of the north-west coast, as far as North-west cape, an extent of 1000 miles, called in the maps, *De Witt's Land*, is low, sandy, and dangerous of approach. Endracht's, Edel's, and Leeuwin's Land, are the names of successive portions of the coast from North-west cape to cape Leeuwin, a distance of 800 miles. The only openings of any importance here, are Sharks' bay and Swan river (q. v.); the latter has been selected by the British government, as the site of a western Australian colony; and an expedition to form the settlement was sent in 1829. The south coast,

xtending above 1200 miles, between cape Leeuwin nd cape Howe, trends to the northward from both xtremities, so as to form a wide gulf. The western ortion of it is called *Nuyt's Land;* of the other ortion, nothing was known till the voyages of 'linders and Baudin, who met in the middle of the ulf. Spencer's and St Vincent's gulf are on this oast. The coast near Bass's straits is of the most terile description; it has, however, two fine harours, Port Western and Port Philip, in the neighourhood of which the country is rich; the former 'ill probably be soon made the seat of a settlement. 'ape Howe forms the south-east point of New Holnd. The eastern coast is called *New South Wales*, nd under that head we shall give an account of the 'ritish colonies there, and of the nature of the ountry, so far as it is known. The inhabitants of lew Holland are of the middle stature. They have large misshapen head, slender extremities, and proecting bellies. Their noses are flat, nostrils wide, yes much sunk in the head, and covered with thick yebrows. Their lips are thick, their mouths very ide, their teeth white, sound, and even. Many ave very prominent jaws. The skin is at first red, nd afterwards becomes almost of an African blackess. Both sexes rub fish oil into their skins to proect them from the air and the musquitoes. Their abitations are extremely rude, and their habits bararous.

HOLLAND; a fine and close kind of linen, so alled from its being first manufactured in Holland.

HOLLES, Denzil, Lord, an eminent political haracter of the seventeenth century, the second son f Holles the first earl of Clare, was born in 1597. le was liberally educated, and, when his father had place at court, was playfellow and companion to rince Charles. The earl of Clare's subsequent disontent was communicated to his sons, and, in the ist parliament of James I., Denzil sided with the pposition. In the parliament of 1627, he took a eading part in favour of liberty, with his characteric ardour and courage. When the three resoluons of the commons, against popery, Arminianism, nd tonnage and poundage by the king's prerogative, ere drawn up, he was one of the two members who rcibly held the speaker in the chair until they were assed. For this conduct, refusing to give bail or surees for his good behaviour, he was condemned to fine nd imprisonment, the latter of which he endured in ie Tower for upwards of twelve months. In 1640, he ntered the long parliament, a determined foe to the ourt, and was placed at the head of the Presbyterian arty. The earl of Strafford having married his sister, e was prevented from taking part in the prosecution f that minister; but he carried up the impeachment gainst archbishop Laud. He was also one of the embers, the imprudent attempt to seise whom, in the arliament house, formed the immediate cause of takg up arms. In the ensuing war, the parliament conrred on him the command of a regiment, and apointed him lieutenant of Bristol; but becoming ware of the designs of the leaders of the Independnts, he endeavoured to frustrate them, by promotg a treaty with the king. In 1644, he was one of ie commissioners appointed to carry propositions of eace to Charles at Oxford; and, in 1647, he made motion for disbanding the army; but that party as now too strong, and the attack was returned pon himself by an impeachment for high treason. le consulted his safety by retiring to France, hence he was allowed to return in 1648, when he esumed his seat in parliament, and was one of the ommissioners appointed to treat with the king in ie Isle of Wight. He was soon after again obliged, y the violence of the times, to retreat to France, where he remained until the restoration, which he zealously promoted. He was one of the members of the house of commons who waited upon the king at the Hague; and Charles II., before his coronation, advanced him to the peerage, by the title of lord Holles of Isfield in Sussex. In 1663, he was sent ambassador to France; and in 1667 was one of the English plenipotentiaries at Breda. Notwithstanding these employments, he remained a zealous friend to liberty; and when the politics of the reign tended to make the king absolute, lord Holles was a conspicuous leader of opposition. He is mentioned by Barillon, the French ambassador, as one of the noblemen who entered into negotiations with France to thwart the suspected measures of Charles against liberty at home; but it is at the same time intimated, that he and lord William Russell alone refused the money offered by Louis XIV. He died with a high character for honour, integrity, and patriotism, in 1680, in the eighty-second year of his age. In 1699 were published Memoirs of Denzil Lord Holles, from 1641 to 1648, (4to); some of his letters and speeches have been published separately.

HOLLIS, Thomas, an English gentleman, memorable for his attachment to civil and religious liberty, and his services to literature and the arts, was born in London in 1720. He was descended from a Yorkshire family of dissenters, and was sent, after a common school education, to Amsterdam, in his thirteenth or fourteenth year, to learn the Dutch language and merchant's accounts. Not long after his return, in 1735, his father died; and, being now the heir of a handsome fortune, it was resolved to complete his education upon a liberal plan. In 1740, he took chambers in Lincoln's Inn, but never engaged in the law as a profession. His attention seems to have been chiefly occupied with the study of the English constitution, and the cultivation of a zealous attachment for civil and religious liberty, and of the friendship of its most eminent supporters, especially among the dissenters. In 1748, he travelled over a part of the continent, and in 1750, engaged in another tour through the remainder. Finding, on his return, that he could not enter parliament without compliances which he did not approve, he made collections of books and medals, especially such as preserved the memory of eminent asserters of liberty, among whom he highly regarded Milton and Algernon Sidney. He was a fellow of the royal, antiquarian, and other learned societies, and made many valuable presents to the British museum. He presented a handsome collection of English books to the library at Berne, and also to Harvard college, in New England, to which, in imitation of some deceased members of his family, he was a most liberal benefactor. In his own country, also, it was one of his leading objects to disseminate books favourable to popular principles of government, editions of many of which he caused to be reprinted. He died in 1774. He was very gentle and polite in his manners, and seems to have united much of the ancient stoic to the modern partisan of freedom and general philanthropist. See *Memoirs of Thomas Hollis, by Thomas Brand Hollis*, London, 1780.

HOLLOW SQUARE, in the military art; a body of foot soldiers drawn up with an empty space in the middle.

HOLLY. The American holly (*ilex opaca*) is widely diffused throughout the United States, extending from about lat. 42° to the gulf of Mexico, and beyond the Mississippi to the border of the desert plains which skirt the base of the Rocky mountains. In many parts of this district, it is not uncommon, and adds to the beauty of the forest by its red berries and brilliant evergreen foliage. It

sometimes attains the height of forty feet, with a trunk a foot in diameter. The leaves are undulated, coriaceous, dentate, and spiny on the margin; the flowers, as in the rest of the genus, inconspicuous, consisting of a four-toothed calyx, four petals, and as many stamens; and they are succeeded by rounded berries containing four osseous seeds. The wood is very hard, susceptible of a fine polish, and more capable of receiving a black colour than any other; it is used principally for veneering: the black lines with which cabinet work is frequently ornamented, in this country, are formed of this wood, died in the coppers of the hatter. It is a good wood for turning, for the cogs of wheels, and for the pulleys of vessels; but for this latter purpose lignum vitæ is preferable. The European holly is very similar to the American in size, appearance, and the qualities of the wood. The *I. vomitoria* is a shrub, inhabiting the Southern States from lat. 37° to the gulf of Mexico, bearing smooth, elliptical and serrated leaves, an infusion of which is taken like tea by the aborigines, who ascribe to it extraordinary virtues, and are accustomed to assemble every spring, with much ceremony, for the purpose of drinking it. It is tonic and diuretic, and, in large doses, purgative and emetic. Three other species of Ilex inhabit the southern parts of the United States. From its retaining its foliage during the winter, the holly is a very desirable tree for shrubberies and ornamental planting. As a fence, it is very serviceable; and when formed into hedges, it admits of being cropped, and retains its verdure even through the severest winters. Its growth is slow, but its duration is longer than that of most other trees. In winter, it affords shelter to birds, and its berries supply them with food; and in Corsica they are used to make a liquor somewhat similar to coffee. The bark is smooth, and replete with a strong mucilaginous substance, from which birdlime is made. Birdlime, it is well known, is used for snaring small birds. Among the Romans, it was customary to send boughs of holly to friends, with new year's gifts, as emblematical of good wishes; and in England it is used to decorate houses at Christmas.

HOLLYHOCK (*althæa rosea*); a malvaceous plant, a native of the East, and very frequently cultivated in gardens for the sake of its ornamental spikes of large and beautiful flowers. The root is biennial, and shoots up one or several very upright, hairy stems, which attain the height of from five to eight feet. The leaves are cordate at base, and divided into from five to seven lobes. The flowers are subsessile, rose-coloured, and situated in the axils of the superior leaves, thus forming a long terminal spike. From cultivation, many varieties have arisen, bearing flowers, single or double, white, yellow, red, or even almost black. It is a hardy plant, and easily re-produced from seed.

HOLSTEIN; a German duchy, bounded on the north by Sleswick, on the east by the Baltic and the duchy of Lauenburg, on the south and west separated from the kingdom of Hanover by the river Elbe, and washed by the North Sea. It contains 3285 square miles, with 362,300 inhabitants, mostly Lutherans. A ridge of hills divides the country from north to south, into two large inclined planes, running down on one side to the Elbe and the North sea, on the other to the Baltic. The descent towards the Elbe is comparatively gradual, and on this side several streams run from the highlands, most of which empty into the Elbe; as the Alster, the Pinnau, the Krukau, and the Stor. The part towards the Baltic is more hilly, and there are only two rivers worth mentioning, viz., the Schwentine and the Trave. But the lakes are numerous, the principal of which are the lakes Plon and Selent. On the eastern declivity, there are some charming spots; e. g., the environs of Plon, Eutin, and Kiel. Nearly all the country is fruitful, particularly the lowlands on the Elbe and North sea, which begin about twenty miles below Hamburg, and are ten miles broad. But a great part of the land in the eastern descent may now be compared to the above-mentioned lowlands, principally in consequence of the use of marl. As for minerals, the country about Oldeslohe contains salt and lime, but no metals. The animal and vegetable productions are more important. Grain is almost always abundant. Manufactures are not produced in sufficient quantities to meet the demand. Manufactures, therefore, together with colonial products and wines, are among the articles of importation. Grain, horses, black cattle, butter, and peat are exported. The import and export of products are very much facilitated by the situation of the country on two seas, and would be rendered even more easy by the increase of canals in the country. Hamburg, lying on the borders of Holstein, together with Altona and Lubeck, are important markets for the consumption of domestic products. The Greenland seal and whale fisheries furnish many inhabitants of Holstein with profitable employment. Holstein may be called a fortunate country, for the necessaries of life cannot easily fail, and are generally abundant. There are good schools in the principal cities, and a university was founded in Kiel, 1665. The seminary for instructers, established in Kiel, 1780, has been of great service in promoting general education. December 19, 1804, bondage was abolished. The most important cities in Holstein are, Altona; Gluckstadt, a fortified city, the seat of government, at the junction of the Elbe and Stor, (the latter of which here forms a pretty good harbour), containing 900 houses and 5200 inhabitants, engaged in the Greenland seal and whale fisheries; Rendsburg on the Eyder, at the termination of the canal which connects the harbour of Kiel with the Eyder, is an important fortress, containing 7500 inhabitants; Kiel. Of less note are Segeberg, where is a quarry of limestone, Oldeslohe, where are salt springs, Plon, Itzehoe, Wilster, &c. The sovereign is the king of Denmark: for the administration of justice, the whole country, except the cities and the estates of noblemen, is divided into districts, under the jurisdiction of particular courts, from which an appeal may be made to the college of justice, or supreme court at Gluckstadt, and from the seigneural courts to the district court, which is partly filled by nobles; an appeal to the king is still allowed in certain cases. The established religion is the evangelical Lutheran, but other religious sects are tolerated; and, for the purposes of ecclesiastical government, the country is divided into eight provostships. Each provostship has a consistory, or spiritual court, composed of several clergymen of the district, under the supervision of the provost, which decides the causes that come within its jurisdiction. From this court an appeal may be made to the superior consistory at Gluckstadt, or supreme court, composed of the clergymen of Gluckstadt and the general superintendent. The provost superintends the churches and schools of his district, and visits them twice a year; the superintendent does the same for the whole country.

The earliest history of Holstein is obscure. Charlemagne conquered the Saxons who inhabited this country, and transported more than 10,000 families across the Rhine into Flanders, Brabant, and Holland. The emperor Lothaire erected Holstein and Stormar into a county. The contest between Denmark and the ducal house of Gottorp was ended, 1773, by

ıe grand prince, afterwards emperor Paul I. of .ussia, ceding his claims on Holstein to the king of)enmark, in exchange for the counties of Oldenburg nd Delmenhorst, which, in 1777, were erected into ıe duchy of Holstein-Oldenburg, and conferred by aul I. on the younger line of Gottorp. When the)nstitution of the German empire was abolished by ıe confederation of the Rhine, the king of Denmark nited (9th Sept., 1806) the whole duchy of Holstein ith the kingdom of Denmark, and took away its ex- ting constitution. In the great European crisis of 313, the war was carried into Holstein. The coun- y was occupied by the combined Swedish and Rus- an armies, and, after a short armistice, a peace was)ncluded at Kiel, Jan. 14, 1814. In 1815, the ing of Denmark, as sovereign of Holstein, was dmitted into the Germanic confederation. Holstein as, therefore, once more connected with Germany, nd it became necessary to establish a constitution ı which the estates should be represented, accord- ıg to the decree of the confederation. The prelates nd nobility of the duchy of Holstein have made ap- lication, in consequence, to the diet.

HOLT, Sir John; an English judge, celebrated r firmness, integrity, and knowledge of constitution- l law, was born in 1642, and was entered as gen- eman commoner at Oriel college, Oxford. Being esigned for the profession of the law, he became a ember of the society of Gray's Inn in 1658, was alled to the bar in due course, and soon distinguish- d himself as a sound lawyer and an able advocate. lis professional eminence having procured him the ost of recorder to the city of London, he filled that sponsible office with much ability for about a year nd a half, when, the court determining on the aboli- on of the test act, his uncompromising opposition to at unpopular measure lost him his situation. He ntinued in disgrace with James till 1686, when he as made serjeant-at-law; and, becoming a member the lower house, on the arrival of the prince of range, he distinguished himself so much by his lents and exertions in what is called the *convention arliament*, that William, soon after his own establish- ent on the throne, elevated him to the dignity of rd-chief-justice of the king's bench, with a seat at ıe council board. In this situation he continued uring the remainder of his life, declining the chan- ellorship, which was offered him on the removal of rd Somers in 1700, and discharging the duties of is high office with a degree of resolute uprightness, hich, however distasteful, on more occasions than ne, to both the houses of lords and commons, gain- l him popularity with his contemporaries, and has ecured him the veneration of posterity. The only rofessional remains of this able magistrate are his dition of Sir John Kelyng's Reports of Cases in leas of the Crown, in the reign of Charles II., with otes, printed in 1708, folio. Sir John Holt died in ıe spring of 1709.

HOLTY, Lewis Henry Christopher, a German ric poet, who excelled particularly in the elegy id idyl, was born at Mariensee, in Hanover (1748). e was the son of a clergyman, was, when a boy, vely and desirous of knowledge, affectionate and leasing; but the loss of his mother, and his suf- rings from the small-pox, which attacked him in his inth year, deprived him of his gaiety. His severe udies, which he often pursued until late at night, lso contributed to this effect. His inclination for rong emotion, and his poetical talent, were early eveloped. In 1765, his father sent him to a school Celle, and, 1769, to Gottingen. He studied theo- gy faithfully, but without neglecting the ancient and odern poets, and without ceasing to exercise his wn poetical talents. As early as 1769 he had gained the reputation of a young man of genius, and Kastner admitted him into his German society. He subsequently became acquainted with Burger and Miller, and afterwards with Voss, Boje, count Stol- berg, and the other members of the society of poets at Gottingen at that period, where the young mem- bers met once a week, to assist each other in their labours. The best of Holty's poems, even in the department peculiar to him, were written at this period, when he was much excited by the influence of this association. To enable himself to remain at Gottingen, he applied for a place in the philological seminary, and endeavoured to earn something by translations and by giving instruction. Love also contributed to bind him to this city. Like Petrarch, he became acquainted with a Laura, but never made known to her his affection. His health was under- mined by severe study, and his father's death (1775), which affected him deeply, increased his debility. Conscious of the near approach of death, he wrote many touching elegies, and was occupied with a collection of his poems, when he breathed his last, Sept. 1, 1776. In tender elegiac or idylic poetry, he is peculiarly successful. An edition of his poems was edited by Voss and Stolberg (1783), finally cor- rected and increased by Voss (1804).

HOLY ALLIANCE. Suffering turns the eyes of nations, as well as of individuals, to Him who con- soles when all other hope is gone. This was the case with the Germans in the time of Napoleon, when, for a long series of years, they endured all the horrors of invasion and war. They took refuge in religion, more particularly as their sufferings were considered the direct consequences of the French revolution, which they looked upon as a work of impiety. The emperor Alexander, as is well known, had also, at least as early as the war with Napoleon, acquir- ed a religious turn of mind, which seemed to increase during the campaign in Germany and France. All the allies, in short, as well as their people, participated more or less in this deep religious feeling, whilst Napoleon was held up as the repre- sentative or incarnation of evil. After the fall of Napoleon, this religious feeling still remained strong in the minds of the people of Europe, and blended with their notions of politics and government, which, in the case of the great mass, were, of course, crude and superficial. They were induced to believe, that religion might be made the basis of international politics. Availing themselves of this feeling, the sovereigns were enabled to form the league denomi- nated the *Holy Alliance*, which was proposed by the emperor Alexander of Russia. Participating in the spirit above mentioned, and desirous to become the pacificator of Europe (an idea which appears to have flattered Napoleon's ambition in the first years of his government), and perhaps instigated by madame Krudener, he proposed this union, Sept. 26, 1815, after the defeat of Napoleon at Waterloo had cleared the way for the execution of his desire of establishing a settled peace in Europe. Alexander, Francis of Austria, and Frederic William of Prussia, signed with their own hands, and without the countersign of a minister, the act establishing this alliance, which is said to have been sent to the two latter in the hand- writing of the first. Alexander published the act in 1816, and at a later period the two other monarchs followed this example. It consisted of a declaration, that, in accordance with the precepts of the gospel of Jesus Christ, the principles of justice, charity, and peace should be the basis of their internal administra- tion, and of their international relations, and that the happiness and religious welfare of their subjects should be their great object. It was also stipulated, that the three sovereigns should invite others to become

members of the Holy Alliance. We do not believe that Alexander foresaw to what violations of justice this alliance would lead; but he is, nevertheless, reprehensible for the consequences of a union founded on principles so indefinite. The sovereigns were soon obliged, by the course of events, to become more precise; and what was at first merely an act of weakness, soon became a conspiracy of the governments against the nations. It was distinctly understood, that the sovereigns became members of the league personally, and, therefore, no counter-signature of ministers was necessary; no guarantees were stipulated. This personal union of princes is either a contradiction in terms (for what is the monarch personally, as distinguished from a chief magistrate, and considered with reference to his own private disposition, but a simple individual?) or it implies that the sovereign is a ruler in his individual capacity, constituted by divine right, so that he never can be separated from the idea of a state or government; but behind this notion lurk all evil and tyranny, an entire contempt of the principles of justice and sound sense. What, then, did these monarchs personally pledge themselves to do? To rule according to the principles of justice and charity. How charity can be made a principle of political relations, it is difficult to say; and as for justice, a compact to be governed by it in future would seem to imply that it had not been their rule in times past. It had been generally conceded, even by the supporters of despotic governments, that rulers were established for the good of the people; only the people were to be regarded in the light of school-boys, who should submit implicitly to their teachers. The members of the holy alliance, however, thought it necessary to make a formal compact, to act justly towards their subjects. As regarded the subject of international relations, the sovereigns showed very little political wisdom when they supposed that a personal pledge could withstand the strong current of events. The name of this league, too, was well chosen, besides being arrogant; since an institution with a similar name—the *holy office* (and not entirely different, in respect to religion, from what the holy alliance turned out to be in respect to politics)—had drawn upon itself the abhorrence of mankind.

As the founders of the holy alliance were a Russian and two German princes, the nations directly interested in it said little against it. In Russia, of course, nothing was permitted to be said; and the Germans are so little versed in politics and public right, that, far from seeing through the league, they were misled by their natural *bonhommie*, to consider it as indicating the approach of a new era of Christian government, or were led to praise it from habits of obsequiousness. Some writers, whom we can hardly suppose to have been actuated by servile motives, and among them even professors in the universities, suffered themselves to fall into a strain of extravagant panegyric, in speaking of the holy alliance, which is quite unaccountable; while others immediately denounced it. One writer* says, that only since the establishment of the holy alliance, can we speak of Christian politics, whilst history would designate all former politics as heathenish, because derived from the Greeks, Romans, and barbarians. Another writer† says, "Jealousy, ambition, passion, intrigue, will be banished from the circle of the sovereigns and their cabinets, and Christian charity will take their place. The rulers have united to rule according to the principles of love, of justice and peace, and to act towards each other accordingly. A union of crowned friends, united by the ties of a noble confidence, will watch for the happiness of nations, and, by united efforts, remove every thing hostile to their repose, particularly the fanatical spirit of revolution, which has for years disturbed the peace of nations, and arrayed them against each other on the field of battle," &c. These sentiments were adopted and echoed by a large party.

Let us see, then, how these crowned friends watched over the happiness of nations. As early as in 1818, a congress was held at Aix-la-Chapelle, in which the holy alliance came out more distinctly with its intentions. A *Déclaration des Monarques* (Nov. 15, 1818), signed by eight ministers was issued by five powers (the kings of Britain and France having acceded to this alliance as individuals, though not in their official capacity, not being able to bind the two characters with the same ease as the three other monarchs). The declaration stated that peace was the object of the alliance, and the system of *legitimate stability* was announced. The *Conservateur Impérial*, at Petersburg (March 14, 1817), had already given the views of the monarchs in regard to what they thought to be *justice* and *charity*. From this congress dates the beginning of those congressional politics, of which we have spoken in the article *Congress*, and the great conspiracy of kings to subdue the liberal spirit then breaking out all over the continent of Europe. All the European sovereigns finally became members of the holy alliance, except the pope, who, of course, could not be a member of a religious league, without being at its head. The German princes, soon after the congress of Aix-la-Chapelle, began their persecutions of the liberals, and, in November, 1819, a German congress was held at Vienna, at which Metternich presided, and which lasted until May, 1820. In the autumn of the same year, the holy alliance, at least several of the powers as members thereof, held a congress at Troppau on account of the disturbances in Spain, and when the revolution in Naples broke out, the congress was transferred to Laybach, in Carniola, where the right of armed intervention (i. e., a forcible interference in the internal affairs of any nation, whose condition is not agreeable to the views and Christian intentions of the crowned friends), already agreed upon at Troppau, was diplomatically admitted into the international law of the powers of the European continent. After the Austrians had, as the phrase was, restored quiet in Italy, Austria, Russia, and Prussia, issued a proclamation, that the justice and disinterestedness which had hitherto guided the councils of the sovereigns, would always be the rule of their politics. In 1822, the chief powers and their adherents held a new congress at Verona (see *Congress*), on account of the insurrections in Spain and Portugal, and the political state of Italy and Greece. The war of France, or rather of the Bourbons, against Spain, in 1823, was a consequence of the congress. We all know the deplorable consequences of this invasion. Spain was thrown back into barbarism. For the Christian views of the holy alliance respecting Greece, see *Greece;* and as to Italy, no unprejudiced visitor of that country will assert, that it is happy under the watchful care of the holy alliance.

As the views of the holy alliance became more decidedly manifested, Britain drew off from it, and, after Canning's appointment as secretary of foreign affairs, she refused to interfere with the internal affairs of Spain, through the duke of Wellington, the British minister at Verona. The manner in which the principles of the alliance were viewed by the United States of America, appears from the message of

* The article *Holy Alliance*, in the *Conversations-Lexicon*.
† The article *Holy Alliance*, in the *Rhenish Conversations-Lexicon*.

resident Monroe (1825), in which he declared, that ny attempt, on the part of the European powers, to xtend the system of national interference to any ortion of this hemisphere, would be considered as angerous to the peace and safety of the United tates; and that any interposition, by any European ower, for the purpose of controlling, in any manner ıe governments of America which had established ıeir independence, would be considered as the ma-ifestation of an unfriendly disposition towards the nited States.

The constant violation of the promises to provide ır civil liberty in Germany and Italy; the suspen-on of the constitution of Poland; the benumbing ppression extended all over the European continent; ıe arrogant proscription of all forms of government ot agreeing with its views; the assertion of divine ght and legitimacy, in direct opposition to the spirit f the age; many persecutions and sufferings to which irtuous citizens have been subjected,—is the sum of hat has been done by this league. It is highly robable too, that the French government under harles X. had received promises of support from ıe allies before issuing its fatal ordinances. The eadiness of the members to acknowledge the inde-endence of Belgium, is a proof that the holy alliance as been compelled to abandon its principles of legitimate stability." Sir James Mackintosh says f the doctrine of legitimacy, in the sense in which is used by the holy alliance, "sophistry lent her olours to the most extravagant pretensions of tyran-y," and, in case of the success of these pretensions which may God avert), tyranny would lend the most ormidable weapons in its arsenal to sophistry. We ay observe, in conclusion, that in proportion as the ıonarchs have united to keep down the people, berty has become the common cause of all nations.

HOLY OFFICE. See *Inquisition*.

HOLYHEAD; a seaport town of Wales, situated 78 miles north-west of London), near the point of ıe peninsula or island, which projects from the estern coast of the isle of Anglesey, and now a lace of considerable importance, since it has become he great port of communication to the Irish capital, nd the rendezvous of the mail packets. A pier has een constructed, to allow vessels to land or sail at ll times of the tide. A light-house is erected on he island of South Stack. The light is of the re-olving kind, and being elevated 200 feet above the evel of the sea, is visible at a great distance, and all ver Caernarvon Bay. The town of Holyhead onsists principally of a long street, with detached uildings. Population, in 1831, 4282.

HOLYOKE, Edward Augustus, M. D., an ımerican physician, was born August 1, 1728, old tyle, in the county of Essex, Massachusetts. He as graduated at Harvard, in 1746, and commenced ıe study of medicine the following year. In 1749, e began to practise his profession in Salem. He ever was as far as fifty miles from the spot on which e was born. He was twice married, and had a umerous offspring. He died March 31, 1829, being ıen above one hundred years of age. Doctor Holyoke was always deemed an acute and learned hysician, and a good anatomist and surgeon. He as one of the founders, and the first president, of he medical society of Massachusetts. He published arious scientific disquisitions. He was versed in atural philosophy and astronomy. He seldom passed day, for the first sixty years of his practice, without oting down some fact or observation, forming an ıcrease of his professional knowledge. His meteo-ological observations were recorded daily for eighty ears. When he was ninety-two years old, he per-ormed the operation of paracentesis. Several of the most distinguished physicians of New England were educated under his tuition. He corresponded with eminent philosophers abroad. In a letter written by him, so late as October, in the year 1828, he mentions, that he was blessed with an excellent constitution; that he maintained his health by constant exercise, having, between the ages of thirty and eighty, always walked in the practice of his profession; that he was not particular in his diet, but temperate as to quantity, and that he had a good set of teeth, but lost them all, through their gradual decay, by his eightieth year. His temper was cheerful; he kept his passions under due restraint. He ascribed his longevity, in part, to "his always having taken care to have a full proportion of sleep." He ate very freely of all kinds of fruit. His hearing and memory were impaired for the last thirty years of his life, but even after he had attained his hundredth year, he took interest in the investigation of medical subjects, and wrote letters which show that he still possessed clearness and strength of understanding. When he was forty-five years old, he required for his sight the aid of convex glasses. These he employed for forty years, when his eyes gradually improved, and, at the time of his death, he was able to read the finest print without the help of spectacles. His medical brethren of Salem and Boston united in giving him a public dinner on his one hundredth birth day. An interesting memoir of his life and character has been published at the request of the Essex medical society.

HOLYROOD, palace and abbey of, in Edinburgh, at the eastern extremity of the Old Town. The abbey was founded in 1128, by David I., and was used as the royal cemetery. It is now entirely in ruins. The palace is a large quadrangular building of hewn stone, with a court within, surrounded by a piazza. It contains a gallery 150 feet long, in which are portraits of all the Scottish kings, most of them imaginary. It is now used at the election of the sixteen peers of Scotland, to represent their order in parliament. In the north-west tower, the bed-chamber of the unfortunate Mary, with the remains of her crimson damask bed, is still to be seen, and an adjoining cabinet, from which Rizzio was dragged and murdered in her presence. A large portion of it was repaired for the Bourbon princes, who resided here after the French revolution. It has since been occupied by the duke of Hamilton, hereditary keeper of the palace, and other noblemen and persons with interest enough to procure admission, and again became the residence of the Bourbons, after they were compelled to leave France by the revolution of 1830.

HOLY WATER, in the Greek and Roman Catholic church, water which has been consecrated by prayers, exorcism, and other ceremonies, to sprinkle the faithful and things used for the church. "By this benediction," says the *Dictionnaire de Théologie* (Toulouse, 1817—a Catholic work), "the church implores God to purify those who use it, from sin, to avert the temptations of the enemy of salvation and the snares of this world. In the apostolic constitutions, the holy water is called a means of expiating sins, and putting the evil spirit to flight." It is contained in a particular kind of vases, probably in imitation of the brasen sea of the Jews, at the doors of churches, and also within them at certain places, from which the Catholics sprinkle themselves before prayer. Holy water is also often found in the chambers of the Catholics, and is used before prayer, particularly before going to bed. The Roman Catholic church seems to consider holy water not only symbolical of the purity of the soul, but, in certain cases as effectual in exorcism. In Rome, animals

are also sprinkled with holy water, on a certain feast, to keep them healthy and thriving. The Protestants renounced the use of holy water, probably from a fear that it would be considered, like amulets or relics, as something efficacious in itself, without the repentance commanded by the church. Ablutions have always been used by pagans and Jews, and the sprinkling with water is typical of washing or ablution. Protestant writers assert that vessels were not placed at the doors of churches, for washing the hands, before the fourth century, and that the water was not blessed for this purpose until the sixth century; but Catholic writers consider it to be proved, that this custom is handed down from the time of the apostles. See father Le Brun, *Explic. des Cérémonies*, vol. i. p. 76.

HOLYWELL; a town and parish of North Wales, in Flintshire, formerly an inconsiderable village, but now become, from its mineral riches, and the vast manufactures carried on in the neighbourhood, a rapidly improving and flourishing town. In this district the great lead mines of Flintshire are situated. The principal manufactures round Holywell are immense copper and brass works, besides cotton mills and silk works. The situation is recommended by the easy access to the sea, and the vicinity of the Flintshire coal pits. The machinery at these works is set in motion by a stream, occasionally aided by steam, which issues from the remarkable holy well of St Winifred, boiling up with violence as from a caldron. Population in 1831, 8969.

HOMBURG. See *Hesse-Homburg*.

HOME is etymologically the same with the German *heim*, not any longer employed as a substantive, and formerly signifying an enclosure as well as an enclosed field,—also a tent. The German *Heimath* is an expressive word for one's country, but no European language has a word expressive of the same ideas of independence and comfort as the English *home*. With the southern nations, this may be owing to the circumstance that their happiness is not so closely connected with a particular residence, whilst an Englishman, obliged by his climate to seek for true comfort within doors, accumulates there his means of happiness. The word retains the same expressiveness among all people of English descent. When used in reference to one's country, it has the sense of the German *Heimath*. The word was commonly used in the American colonies, before the revolution, in reference to England. At the present day, advertisements continually appear in the Calcutta papers of vessels "bound home," meaning to England.

HOME, Henry (lord Kaimes), a Scottish judge, eminent for his writings on various subjects, was descended from a noble family. He was born at Berwick in 1696, and received his education from a private tutor at home. In 1712, he was bound to a writer of the signet, but, ambitious of becoming an advocate, he sealously supplied the defects of his education, and fitted himself for the bar, to which he was called in 1724. He soon acquired reputation by a number of publications on the civil and Scottish law, the first of which, consisting of Remarkable Decisions in the Court of Session, appeared in 1728. This was followed, in 1732, by Essays on several Subjects in Law. During the troubles in 1745 and 1746, he sought shelter in retirement, the fruits of which appeared in 1747, in his Essays upon several Subjects concerning British Antiquities. In 1757 appeared his work, the Statute Law of Scotland abridged, with Historical Notes; in 1766 and 1780, additional Decisions of the Court of Session; and, in 1777, his Elucidations respecting the Common and Statute Law in Scotland. In 1752, he became a judge of session, and assumed, according to the custom of Scotland, the title of lord Kaimes. From his youth he had a great turn for metaphysical disquisition, and maintained a correspondence with bishops Berkeley and Butler, doctor Clarke, and other eminent reasoners. In 1752, he published Essays on the Principles of Morality and Natural Religion, in which he advocates the doctrine of philosophical necessity. His Introduction to the Art of Thinking (12mo, 1761) is useful to young persons. In 1762, he published his Elements of Criticism 3 vols., 8vo), in which, discarding all arbitrary rules of literary composition, he endeavours to establish a new theory on the principles of human nature. Its chief defect is an unnecessary multiplication of original tastes or principles. He followed this elaborate work, in 1773, with two quarto vols., entitled Sketches of the History of Man, which is ingenious and entertaining, but not always founded on the best information. In 1776, at the age of 80, he published the Gentleman Farmer; being an Attempt to improve Agriculture, by subjecting it to the Test of Rational Principles, (8vo). He died in 1782, at the age of 86.

HOME, John, a dramatic writer, was born near Ancrum, in Roxburghshire, in 1724. He was educated at Edinburgh, for the church. In 1745, he took up arms on the royal side, and was made prisoner at the battle of Falkirk, but contrived to escape, and was licensed to preach in 1747. After visiting London, he was settled as minister at Athelstaneford, in East Lothian, where he composed his tragedy of Agis, which was refused by the London managers. His Douglas being also refused by Garrick, the author had it performed at Edinburgh, in 1756, himself and several of his clerical brethren being present. For this departure from the usages of the church of Scotland, the author was threatened with ecclesiastical censures, and in consequence resigned his living, and ever after acted and appeared as a layman. As a persecuted man, he was complimented on this occasion by David Hume, who, in a strain of high panegyric, addressed to him his Four Dissertations. His Douglas became a stock piece. Several other dramatic attempts by him completely failed. The Siege of Aquilea, the Fatal Discovery, Alonso, and Alfred, had not even temporary success. His History of the Rebellion of 1745—6 (4to), also disappointed public expectation. He died in 1808, at the advanced age of 85.

HOMER and the HOMERIDES. The little which we know of the life of one of the most distinguished poets, is very uncertain. According to common tradition, his father was Mæon, his mother Critheis, and he was a child of love, born on the river Meles, not far from Smyrna. Hence he was called, from his father, *Mæonides*, and from the place of his birth, *Melesigenes* (born on the Meles). Other genealogies are also given. It is well known that seven cities disputed for the honour of being his birthplace: Smyrna, Colophon, Chios, Argos, Athens, Rhodes, and Salamis: instead of the two latter, however, some mention Cumæ and Pylos. If we search his poems for indications of his birthplace, we shall find several passages from which it may be inferred that he lived in Asia Minor, probably in Ionia; or in a neighbouring island. (See Wood's Essay On the Original Genius of Homer.) According to the hymn to Apollo, quoted by Thucydides, he lived in Chios. Smyrna and Chios seem to have the strongest arguments in their favour. If we inquire farther, When did Homer live? the same uncertainty meets us. It is doubtful whether he should be referred to the 10th, 9th, or 8th century before Christ. The second date is the most probable. Pherecydes and Pronapides are

entioned as his teachers, according to a late biography, which is destitute of authority. The many urneys which he is said to have made, not only rough Greece, but also through Phœnicia and gypt, seem to have been attributed to him merely account of the knowledge of the geography and vigation of his time, displayed in the poem. If omer was really blind, as Pausanias declares, he rtainly cannot have been so from his birth, for it ould be impossible for a man born blind to give ch descriptions of visible things as he does. Some ve represented him as a blind schoolmaster, and hers as a blind beggar, who was obliged to sing his ngs before the doors of the rich for bread. This sertion is inconsistent with all we know of the cient Greek bards and their manner of life. If not ch and powerful, they were at least respected and teemed, and equally welcome in the assemblies of tizens, in the palaces of princes, and at public crifices. If, therefore, Homer was, as indeed is obable, a wandering singer, he certainly was no ggar. Of the circumstances of his death, we ow as little which can be relied upon. Yet his grave s been shown on the island Ios (now Nio). So little we know of Homer! But what if there never was ch a person as Homer? According to an old tradition, he is descended, in the fourteenth degree, om a Thracian bard; the names of his mother, ther, and grandfather have reference to poetry. hat, then, if this genealogy (as is the case with any of the mythological representations of other bjects) is merely an allegorical history of poetry, hich was brought from Thrace through Thessaly to reece, and thence passed to Asia Minor? Homer, such a case, would be a collective name, and signify an Ionian school of poets, in which poetry was armed and handed down from generation to generation. (See the celebrated Frederic Schlegel's *History of the Poetry of the Greeks*.) On this supposition, the contradictory accounts of Homer might be xplained.

More distinct information on these points is perhaps contained in the poems which we possess under he name of Homer. Twenty-four poems are ascribed to him, which are lost. Those which are extant are he Iliad, Odyssey, Batrachomyomachia, Hymns, and pigrams. Criticism decides that all four of these annot be ascribed to Homer. The Batrachomyomachia (i. e., the Battle of the Frogs and Mice), a ock-heroic poem, is evidently merely an attempt nd a successful one), to travesty the Iliad and dyssey; and its contents, language, and the customs which it refers, betray a much later age than the ther Homeric poems. The Hymns are chiefly of an pic character, and essentially different from those of rpheus, and are only fragments of ancient Cyclic oems, or preludes of rhapsodies; they are also conidered by the more acute critics to be of a much ter age than the two great epics, and not to be by he Ionic bard. There remains, then (as the Epirams are out of the question), only the two larger oems, the Iliad and Odyssey, from which we can rm any judgment of Homer. The whole mass of ories in these poems revolves round two great ntres; the one, a renowned national enterprise, dolent of youthful vigour and the glory of courage s conceived of by nations in their infancy, very different from moral firmness, or even from the military alour of our times); the other, a full picture of omestic life, united with the charming, the wonderul of distant countries, and exhibiting a model of gacity, victorious, at last, over a thousand obstacles. e do not mean that the works exhibit a settled lan, based upon these leading ideas, and to which ll the parts are subservient, but that such is the result to which we are brought by putting together all the parts of the two poems. Even the ancients felt, that the Odyssey was composed in a very different spirit from the Iliad, which has much more fire and elevation. The style of the two poems is different. In the Iliad, one book often contains forty similes, whilst the whole Odyssey contains but twenty. Longinus (chap. 33) speaks at length of the difference between the Iliad and the Odyssey; according to him, the author of the Iliad resembles the rising, and the author of the Odyssey the setting sun. The tone of complaint which prevails in the Odyssey is cited as a confirmation of the supposed old age of the writer. Some Alexandrian scholars received the name of *chorizontes* (i. e., the separating), because they believed the poems to be by different authors. In the Odyssey, the language, ideas, and mythology are different from those of the Iliad. What is done in the Iliad by Iris, is performed in the Odyssey by Mercury. No god or goddess is precisely the same in both poems; the figures have changed. The Olympus, the notions of the kingdom of the shades, the costume of the gods in their intercourse with mortals, are different; customs, manners, moral notions, the arts and sciences, are advanced. The supposition, therefore, that the two poems belong neither to the same poet, nor to the same age, is obvious, and cannot be entirely rejected.

Wolf, the famous German philologist, went still farther in his *Prolegomena* to Homer, and maintained new views respecting the ancient epic poems of the Greeks in general, and the Homeric in particular. Neither the whole Iliad, nor the whole Odyssey, is, according to him, the work of one author, but each was originally a series of songs of different poets. The proofs of this assertion are the following: In the time of Homer, the art of writing, if invented, was at least not in common use among the Greeks, and not carried so far as the writing of books. But if Homer did not know how to write, he could never have conceived the idea of composing works of such extent. The Greeks, in the time of Homer, were not so far advanced in civilisation as was necessary for the composition of such a whole; because, though there is by no means an entire unity of plan in these poems, particularly in the Iliad (as has often been asserted; in fact, all perfections have been attributed to these poems), yet it is an artificial composition, and the Odyssey is still more so; this circumstance does not agree with the state of civilisation in which the Greeks must have been at that early period, according to all appearances. In addition to this, there is in the poem itself a great inequality, particularly between the first and last books. From the 19th to the 22d book of the Iliad are traces of a tone of thinking and expression foreign to the preceding part of the work. From the 8th book we perceive marks of the process employed to connect the rhapsodies. Finally, in the time of Homer, the language was not carried to such a grammatical perfection as it appears in both poems, and according to Hermann (edit. *Orph.* p. 687), the metre is not the same: thus, for instance, a very great difference in this respect is observable between the 13th and 23d book.

The result of all these investigations is, that neither of these epics is from one author, nor of the same age. Several parts may be discovered, which form wholes by themselves; for instance, the 7th, 8th, and 9th books form one rhapsody—the victories of Hector. Other parts also form wholes of themselves; some of them were evidently inserted at a later period, as was acknowledged by the ancients; among them are the catalogue of ships, the games, the episode of Dolon, and others. The

question then is, How were these separate parts combined into two wholes? For centuries, these parts were detached songs, preserved by the rhapsodists, the favourites of the Ionian Greeks. Lycurgus, about a generation after Homer, first brought the Homeric poems into the mother country, on his return from Crete and Asia. Three centuries later, Pisistratus and the Pisistratidæ began to collect the works of Homer, and ordered that they should be annually sung at the feast of the Panathenæa, by the rhapsodists. After they had been reduced to writing, and put in order, they underwent repeated revisions, their deficiencies were supplied, they were continued, and at last received their present form from the labours of the Alexandrine scholars. These epics also owe their division into twenty-four books to these learned men, according to the number of the letters of the alphabet. (For the periods which are to be distinguished, see Wolf and Schlegel, in the work already quoted.) The scholars engaged in this labour were called διασκευασταί, (i. e. editors). Before these διασκευασταί, therefore, we cannot speak of an Iliad or an Odyssey. They have not, then, in all probability, their original form, because, even on the supposition of the most faithful tradition, deviations from the original would be unavoidable in so long a course of time. These changes became still more considerable by the boldness of the grammarians in correcting the various readings, and the rejection of passages became so frequent, as to give rise to a proverb—to cast Homer out of Homer. Not only single passages, but whole rhapsodies were rejected.

From these circumstances we can judge how much we have or know of the original Homer. The (so called) *Homeric works* are then, chiefly fragments of different authors, and the one Homer becomes several Homerides, i. e., bards of the same Ionian school (see *Greek Literature*), from which Homer himself proceeded, and over which he may have presided. The poets, however, are properly called *Homerides*, or descendants of Homer, because they all bear the stamp of the beautiful Ionian epic school. If we, nevertheless, continue to speak of *Homer's poems*, it is partly in conformity to custom, partly because the real Homer, whose existence cannot be positively denied, may have furnished the ground of these poems, and perhaps composed a considerable part of them. However this may be, this critical view (which has found adversaries in Harles, Voss, St Croix, Mannert, Hug, Bouterwek, &c.), only denies the character of a regular epic to the Homeric songs,—an epic in which an original, artificial unity embraces the whole, and strictly subjects all the single parts to a plan, which binds together the whole poem; and on the whole nothing is lost but the rules which certain critics, blindly following Aristotle, derived from that pretended whole. A mechanical and dramatical unity, foreign to the epic, has been attributed to those poems, which may be denied the Homeric songs, without injury to their poetical value. Though there is no single, uninterrupted action in these poems, yet action is in general the life of the Homeric poetry. Nowhere do we find a pause in the action, or, as it is called, a *poetical picture* or description; every thing is in a constant progress; it grows before our eyes. But every mode of expressing action is not compatible with the epic; a passionate description would pass over into lyric or dramatic poetry. Homer's heroes may be moved by the strongest passions; the representation of them is always calm. What the poet relates finds its way to every feeling heart, but he himself never shows his feelings, neither inclination nor dislike. Totally lost in his subject, you never perceive his individuality. That the poems are not necessarily, on this account, the work of one man, appears from the fact that this was more or less the characteristic of classic art. Though the poet is himself a Greek, he speaks impartially of the Trojans. There is nothing in the poems which makes us impatient for the *dénouement*. A uniform development, in constant progress, is the character of the Homeric epic. Herder therefore says of him: "The truth and wisdom with which he unites all the subjects of his world in a living picture, the firmness of every stroke in all the personages of this immortal picture, the divine freedom with which he contemplates the characters, and paints their virtues and vices, their successes and disasters—this is what renders Homer unique, and worthy of immortality." We cannot entirely agree with this view of Homer, because in Shakspeare this impartiality and absence of individuality is at least equally great, and much more admirable, as he is a dramatic poet, and the display of character is therefore his paramount object.

In what we have already said, we have indicated what we consider the chief beauty of Homer. Few of his characters are of an elevated stamp. What, for instance, is the greatness of his chief hero, Achilles? The excellence of Homer consists in the simple, true, and diversified representation of one powerful action, which was national, and therefore all-engrossing; a representation which, though always calm, is always true. It is, in one word, the poetical faithfulness, the calmness and devotion of the poet, together with the beauty of his language, which render Homer great. If it were only for the chaste and yet powerful use of the noblest idiom ever spoken, so harmonious, finely organized and expressive, the pages of the Ionian epic would amply repay perusal. If the Homeric poems had always been considered in a simple and unprejudiced manner, free from the influence of a thousand pedantic theories and exaggerations, they would have had fewer pretended admirers, but more who truly relished them. For some excellent remarks on this point, see A. W. Schlegel's criticism of Goethe's *Hermann und Dorothea*. For some further observations, see the article *Nibelungenlied*.

Germany possesses the best translation of Homer, by the great scholar J. H. Voss; there are also many other translations in the same language. Wolf's translation of 100 verses of the Odyssey (in his *Analecta*) exhibits the highest excellence of which a translator is capable; but the rules which he prescribed to himself of a close adherence to the original cannot be expected to be carried through. The English version of Pope is rather a paraphrase than a translation, but the beauty of its diction has made it a standard English classic. Cowper's version is much more faithful, but inferior in beauty of language. Sotheby, the translator of Oberon and of the Georgics, has also given a beautiful translation of the Iliad. Among the editions of Homer are those of Clarke (London, 1729—40, 4 vols. 4to, often reprinted); Ernesti (Leipsic, 1759—64, 5 vols., and 1824, et seq.); Wolf (latest edition, Leipsic, 1817, 4 vols.); Heyne (Iliad only, Leipsic, 1802, et seq., 8 vols.) So much has been written for the explanation of Homer, that a mere enumeration of the titles of the works would fill a volume. We may mention Wolf's and Knight's Prolegomena, Feith's Homeric Antiquities, De Marée's Essay on the Civilisation of the Greeks in the Time of Homer, Halbkart's Homeric Psychology, several works on the Morality and Theology of Homer, by Heyne, Harles, Delbruck, Hermann, Voss, Wagner; on the Geography of the Homeric Poems, by Schonemann, Schlichthorst, A. W. Schlegel, Voss and Volcker. Even on the modern

ineralogy, and the general stock of knowledge ntained in Homer, works are not wanting. We ay mention also, for the general reader, Flaxman's lustrations of Homer (designs from Homer's desiptions), and Tischbein's Homer, after Antiques, ith Explanations by Heyne.

HOMEROMASTIX (from Ὁμηρος and μαστιξ, flagellate), the Scourge of Homer; a surname of oilus.

HOME-SICKNESS, in medicine *Nostalgia*. The atural feeling of grief at a separation from the pater-al home and native soil, becomes, in men of great nsibility, who go to a different climate (especially om a mountainous to a champaign country), and re surrounded by different scenery, without active ccupation, a real disease. It shows itself by a deep elancholy, under which the whole nervous system a short time suffers. The mind of the patient is lled with thoughts of his country, and with associaons which serve to recall it. The desire of seeing , and despair of gratifying the desire, engross him. s the disease of the nerves increases, spasms come n. The respiration of the individual becomes diffiult, interrupted, and consists almost wholly of sighs. lis appetite is lost. A deadly paleness extends ver all his countenance, and his sight grows dim nd weak. His heart beats immoderately, and throbs ith the slightest motion. His secretions become regular; congestions afterwards originate in the oblest organs; sleep flies from him, or consists rincipally of dreams, which are filled with the scenes e has left. Sudden death sometimes puts an end to is situation; but more commonly a slow, nervous nd hectic fever ensues, which carries off the indivi-ual, if it is impossible to overcome the disease. A eturn to his home is the most effectual remedy. he confidence that this will happen has cured many. but when this is impossible, agreeable occupation is better remedy than medicine.

HOMICIDE is either justifiable, excusable, or felonious. Of the first sort is the killing of public nemies in battle, in the prosecution of a declared ar, in pursuance of the orders given by commanders ly commissioned. So where a crime is punishable apitally according to the laws, the judge is bound o condemn the criminal to death, and the sheriff or ther executive officer to carry the sentence into ffect in the manner prescribed by the sentence of ondemnation. But the judge must have jurisdiction f the offence, and be duly commissioned, and the xecutive officer must be empowered to carry the entence into effect, and must perform the execution n the manner prescribed by law, otherwise the exeution of the criminal will make the judge or the fficer, as the case may be, guilty of criminal homiide. Sir Matthew Hale, being doubtful of the alidity of his commission under Cromwell declined tting as judge in a capital case. So, too, where an fficer of justice is resisted in the execution of his ffice, in his attempt to arrest a person in a criminal, r, as is maintained, even in a civil case, he is not bliged to give back, but may repel force with force, nd if the person resisting is unavoidably killed, the omicide is justifiable, for few men would quietly ubmit to arrest, if, in case of resistance, the officer as obliged to give back. But if the party, inead of resisting, attempts to avoid an arrest by ight, the officer is not, in ordinary cases, justified killing him to prevent his escape. It is, however, aid down as law, that if a felony be committed, and he felon attempts to fly from justice, it is the duty of very man to use his best endeavours to prevent an scape; and if, in the fresh pursuit, the party be kil-ed, where he cannot be taken alive, it will be deem-d a justifiable homicide. And this justification is not limited to those who may witness the act of felony, but extends to all who join in the fresh pursuit. The same rule applies to cases of an attempt, on the part of a felon, to break away and escape, after he has been arrested, and is on the way to jail. So if a party has been indicted for felony, and will not permit himself to be arrested, the officer, having a warrant for his arrest, may lawfully kill him, if he cannot be taken alive. But this is to be understood only of officers, and not of private persons. Magistrates and officers authorised to suppress and disperse mobs, are justified, by the common law, in taking the requisite measures and using the requisite force for this purpose, though it extend to the killing of some of the rioters. An English statute of 21 Edward I. provides for a case of forcible resistance of trespassers. It relates to trespasses in parks, and provides that if a parker, forester, or warrener finds a trespasser in his grounds, intending to do damage therein, who will not yield after hue and cry made to stand, but flees or defends himself, if he is killed in the attempt to take him, the homicide shall be no crime. And a striking application of this law is mentioned in Hale's Pleas of the Crown, in the case of Sir William Hawkesworth, who, being weary of life, after blaming his parker for his negligence, and ordering him to execute the law rigorously against any one who should enter the park for the purpose of stealing deer, went himself into the park, by night, when he could not be distinguished by the keeper, and, on being questioned and refusing to stand, was shot, and the homicide was considered justifiable. The law arms every member of the community with the power of life and death for the prevention of atrocious felonies accompanied with violence and personal danger to others; as, in case of an attempt to murder or rob, or commit burglary or arson, the person making the attempt may, by the common law, if he cannot be otherwise prevented, be killed on the spot, and the law will not recognise the act as a crime. In cases of this sort, in order to justify the homicide, it must appear that there were good grounds for a suspicion that the person killed had a felonious intent. Thus in Levet's case, reported by Croke, Levet being awaked by one of his servants, and told that there were thieves in the house, got up, and with a drawn sword in his hand searched the different rooms to find the thieves. A servant had concealed Frances Freeman, a visitor of hers, in the buttery, not wishing her to be seen, and Levet's wife discovering Frances, it being too dark, however, to distinguish her clearly, called out to her husband that she had found the thieves, and he thereupon went into the buttery, and, thrusting with his sword in the dark, killed Frances. The homicide was held to be justifiable, though Sir Michael Foster expresses a doubt whether sufficient caution had been used. But lord Hale considers it to be one of the cases in which the ignorance of the fact, and the strong grounds of the suspicion, afford a sufficient excuse.

The cases already mentioned of justifiable homicide, are those in which the public authority and laws are directly concerned. The laws of society, however, leave every individual a portion of that right of personal defence with which he is invested by those of nature. If one may interpose to prevent an atrocious crime against society, where he is not himself in any personal danger, the laws will, *a fortiori*, permit him to defend himself against attacks upon his own person. This right may be more clearly explained in connexion with the subject of felonious homicide, usually classed under the titles of *murder* and *manslaughter;* for this latter term, though etymologically coinciding with the term *homicide*, is usually applied to cases of blamable

homicide. Murder is the killing of a person who is under the protection of the laws, with malice prepense, either express or implied. Malice is the distinguishing characteristic of murder. It is not necessary, in order to constitute the crime of murder, that the slayer should have the direct intention of killing. If the act be done with a wicked, depraved, malignant spirit, a heart regardless of social duty and deliberately bent upon mischief, it is characterised by what the law denominates malice, though it may not result from any enmity or grudge against the particular victim. Thus, for instance, if a man resolves to kill the first person he may meet, a homicide committed in pursuance of such a resolution, is accompanied by the malice contemplated by the law as the characteristic of murder, although the parties may never have known each other. So if a man wantonly discharges a gun among a multitude of people, whereby any one is killed, the act will be done with that depravity of disposition which the law considers malice. Another instance of this intention of murder is, the purposely or wantonly letting fall a heavy body from the top of a house, or other height, into the street, where people are known to be frequently passing, and whereby any one is killed. The very definition of this crime imports that, like all other crimes, indeed, it can be committed only by a free agent. The crime presupposes a will, motive, or disposition, on the part of the perpetrator. Nor will any mere threat so far take away his freedom of action as to excuse him for killing a third party, though the coercion used for this purpose might exonerate him from a contract made under its influence. An idiot or insane person cannot commit this crime. But drunkenness is, in general, no excuse for homicide, though the act be done under its immediate influence. But some judges have held, that where a person had been so long in the habits of intemperance, as to cause the kind of insanity known under the name of *mania a potu*, and was accordingly subject to an established derangement of mind, an act of homicide by such a person was not murder, but that he was to be considered as insane, and not responsible for crimes any more than if his mental disorder had been caused by any other vice, or without any fault on his part.

The manner of killing is not material. Whether it be by sword, poison, beating, imprisonment, starvation, or exposure to the inclemency of the atmosphere, it will be equally murder. A son, who cruelly and unnaturally exposed his sick father to the open air during inclement weather, whereby his death was occasioned, was held to be guilty of murder; and so was a woman, who caused the death of her child by leaving it in an orchard scantily covered by leaves, whereby it perished; and so, also, persons having the care of a child, who caused its death by removing it from parish to parish without supplying it sufficient sustenance. A master who compelled his apprentice to sleep on boards, exposed to the atmosphere, and thereby occasioned his death, was held to be guilty of murder. This crime may be committed by mere advice and encouragement. As to the person on whom a murder may be committed, the English law books say it must be one "in the peace of the king," that is, a person entitled to the protection of the laws, as is one of the public enemy, if he is in the country and not participating in the war. An infant unborn is within the protection of the law, and it is laid down, that if, in consequence of poison given or wounds inflicted before the birth of a child, which is afterwards born alive, it dies soon after its birth, the act is murder.

The act of suicide is considered by the law to be murder, and the person making away with himself, is accordingly styled a *self murderer;* and the laws of Great Britain have heretofore attempted to punish this crime by directing that the body of a suicide should be ignominiously buried. But this was only punishing the surviving relatives and friends of the deceased for his offence; and though it should be admitted to be a discouragement of suicide, it would be a very questionable justification of the law, which will appear from applying the same rule to any other offence; as, for instance, we may suppose that if a man knew that all his relatives, friends, and neighbours would be whipped for any theft he might commit, he might thereby possibly be induced, from motives of humanity, to refrain from thieving: but the chance of this salutary influence upon a vicious mind, would hardly be a sufficient justification of the law. These laws, inflicting punishment upon the living by the ignominious sepulture of suicides, have accordingly been very rarely put into execution, and the laws themselves begin to disappear from the statute book.

The lines of distinction between felonious and excusable or justifiable homicide, and between manslaughter and murder, are, in many cases, nice and difficult to define with precision. But, in general, the accused has the advantage of any uncertainty or obscurity that may hang over his case, since the presumptions of law are usually in his favour. The characteristic distinction laid down in the books between murder and manslaughter is the absence of malice in the latter. Most of the instances of homicide which come under the term *manslaughter*, are those which the law considers excusable. Sudden provocation may be an excuse for striking another with the hand, or with a stick held in the hand, without the intention to give a deadly blow, and though death ensue, the party may not be guilty of murder. It is made a question whether mere words, unaccompanied by acts, such as menacing gestures, are a sufficient provocation to justify a blow or violence which results in homicide. Where a person, whose pocket was picked in a crowd, to avenge himself threw the pickpocket into a neighbouring pond, intending only to duck him, and the man was drowned, it was held to be only manslaughter. For though a bodily harm was intended, yet the injury which appeared likely to result from the act, was not greater than the provocation seemed to excuse, or at least palliate. One circumstance, showing the degree of malice, or, rather, showing its presence or absence, is the kind of weapon used in giving a wound on a sudden provocation; and another circumstance of importance is the fact of the weapon's being already in the hand or not, for going to seek a weapon gives time for deliberation. The ground of excuse of homicide, in case of provocation merely, is the supposed sudden passion, some influence of which the law concedes to the frailty of human nature. But the excuse of self-defence goes still further; and where a man is attacked, so that his own life is endangered, or in such way that he may reasonably suppose it to be so, he may repel the attack with mortal weapons. One of the most frequent cases of manslaughter is that occasioned by single combat; and on account of the firm hold which the point of honour has taken of the civilised nations of the west, this has long been among the most difficult subjects of legislation. See *Duel.*

The crime of murder, in its most aggravated degree, is punished with death throughout the civilised world; and, in England and the greater part of the United States of America, this crime is so punished without exception. But in Pennsylvania and some other of the states, only murder in the first degree, that is, with deliberate intent, or committed with circumstances

f great atrocity, is a subject of capital punishment; nurder in the second degree, or of a less aggravated haracter, being punished by imprisonment in the ublic penitentiary for a longer or shorter period. Manslaughter is punished by imprisonment only, or y imprisonment and fine.

HOMILIUS, Godfrey Augustus, music director n the three principal churches at Dresden, one of the reatest organists and composers of church music of is time, born February 2, 1714, at Rosenthal, on the Bohemian frontiers, was made, in 1742, organist at church in Dresden. He died June 1, 1785. Few f his compositions have been printed.

HOMMEL; the name of several great jurists in axony.

1. Ferdinand Augustus Hommel was born at eipsic, in 1697, was professor of law and a member f the supreme court in the same place. He died, fter a life devoted industriously to the science of w and the administration of justice, in 1766. His orks show his philosophical mind and great legal rudition.

2. Charles Ferdinand Hommel, son of the preced- ng, was born in 1722; in 1750, taught law at Leip- ic, and, in 1756, was made professor of the decretals. fter having received many honours and titles, he ied in 1781. He was one of the greatest jurists of is age. Besides his labours in the science of law, e contributed to introduce a better and purer lan- guage in the German courts. Besides the law, he as well versed in many other branches of science, s his *Bibliotheca Juris Rabbinica et Saracenorum Arabica*, his *Jurisprudentia Numismatibus illustrata*, nd his many academical writings prove. Among is works are his German Flavius, that is, directions or drawing up sentences, both in civil and criminal ases (4th edit., augmented and corrected by doctor Klein, Bayreuth, 1800, 2 vols.); *Rhapsodia Quæs- ionum in Foro quotidie obvenientium* (7 vols., 4th dit., Leipsic, 1783—87, 4to), of which the seventh olume, edited by Rossig, contains Hommel's Life; is *Oblectamenta Juris Feudalis* (Leipsic, 1755, 4to); is work on Rewards and Punishments, according to he Turkish Laws (2d edit., 1772), &c.

HOMO NOVUS (*Latin*, a new man); in ancient Rome, a person of plebeian birth, and the first of his fa- nily that held a curule office, with the right of putting wax image of himself in the *atrium* of his house (*jus maginum*), which placed him in the class of *nobiles*. The dignity thus acquired descended to his children.

HOMŒOPATHY; the name of a system of me- licine, introduced by Samuel Hahnemann, and which, or about twenty years, has attracted much attention n Germany, and, of late, in other countries also. The name expresses the essential character of the ew system, which consists in this—that such reme- lies should be employed against any disease as, in a ealthy person, would produce a similar, but not precisely the same disease (from ὅμοιον πάθος). The undamental principle of this system is, therefore, *similia similibus curantur*. To find such medicines gainst any given disease, experiments are made on ealthy persons, in order to determine the effect on hem. In the conviction that every disease carries with it a great susceptibility for the proper medicine, nd that the power of medicine increases by minute ivision, the homœopathist gives but one drug at a ime, and does not administer another dose, or a new nedicine, until the former has taken effect. At the ame time, a strict diet is prescribed, that the opera- ion of the medicine may not be disturbed. Homœo- pathy directs the attention chiefly to the symptoms of he disease, which are followed up and observed with much greater accuracy than formerly. Disease is considered by it as only an aggregate of symptoms; and therefore the business of the physician is to ex- tinguish the symptoms. The disciples of this system care little about the customary names and divisions of diseases; they only regard the particular pains and debilities of which the varieties of sickness are com- posed. The proximate causes of diseases, therefore, are little regarded, though the more remote causes are studied, at least in relation to diet. Every dis- ease is considered as requiring a specific remedy. Homœopathy is thus in opposition to the Hippocratic system, which has existed, under various forms, for twenty-two centuries; and it has been exposed to numerous attacks on this account. We will mention some of the points in dispute.

Homœopathy objects to the Hippocratic system, that it acts on the maxim *contraria contrariis curan- tur*, and therefore effects merely a palliative cure. This reproach is unjust, because the judicious physi- cian endeavours to restore the diseased organs by the influence of the healthy organs, and the merest em- piric alone attempts to cure by absolute *contraries*. The Hippocratic medicine does not even reject the homœopathic principle, as the treatment of nervous diseases proves. Secondly, the homœopathists ac- cuse their opponents of directing their efforts against what cannot be known, the proximate cause of the disease; while, in turn, the homœopathist may be reproached with attaching himself merely to the superficial, external appearance of the disease, and with a pedantic minuteness in regard to those symp- toms which disease assumes in a given case. Thirdly, the homœopathist accuses the others of administering remedies of which they do not know the effects; to which it may be replied, that the effect of a medicine becomes perfectly known only through a patient, never by a healthy person. Fourthly, the minuteness of the dose prescribed by the homœopathists is ob- jected to by other physicians, who, however, should not forget that they constantly order a solution of one grain of tartar-emetic in eight ounces of water. The unnecessary or injudicious mixture of medicines has become much less common than formerly among the Hippocratic physicians. The Hippocratic school cannot reconcile itself to the idea that all classifica- tion of diseases under generic names is, in itself, without meaning, and that the course of acute dis- eases, the doctrine of the crisis, &c. (the basis of the Hippocratic medicine), is imaginary, since it rests on a faithful observation of nature. The old system, therefore, reproaches homœopathy not only with not knowing, but with disdaining to know, the nature of diseases. Since the knowledge of the nature and the course of diseases is the indisputable basis of the Hippocratic medicine, a great revolution in medicine is not to be expected from homœopathy. If its principles should prove true, it will result in a knowledge of specific means of cure, and thus make a valuable addition to medicine, as other systems have done.

The works on homœopathy are already numerous. Hahnemann's *Organon der rationellen Heilkunst* appeared first at Dresden (1810), and has reached a fourth edition (1829); a French translation in Dresden by Brunow (1824), an English by Ahner, an Italian by professor Bernardo Quaranta, and Russian in Casan by Petersen. The *Reine Arzneimittellehre von Hahnemann* appeared, in six volumes, Dresden, 1811 to 1821. The Archives of Homœopathic Me- dicine, under the direction of Stapf, has been pub- lished at Leipsic, since 1821. Other works on homœopathy, some of which are against it, have been written by A. J. Hecker, Bischoff, Puchelt, Rau, Heinroth, &c.

HONDEKOETER, or HONDEKOTTER. There were three Flemish artists of this name.

GILES, born in 1583, at Utrecht, excelled in landscape painting.

His son, GUSBRECHT, born in 1613, was celebrated for his delineation of ducks and other fowls, as well as of birds in general.

MELCHIOR, the grandson, by far the most celebrated of the three, was born in Utrecht, in 1636, and died there, in 1695.

HONDURAS, one of the states of Central America, is bounded north by the bay of Honduras, east by the Caribbean sea, south by Nicaragua, and west by Guatimala and Vera Pas; 890 miles from east to west, and 150 from north to south. The country consists of mountains, valleys, and plains, watered by a great number of rivers. It was formerly one of the most populous countries of America; at present, though exceedingly fertile, it is almost a desert. The climate is hot and moist, and in many parts unhealthy. The soil is of great fertility, producing in abundance the various kinds of tropical fruits and vegetables. It yields three crops of maise and two of grapes in a year; other productions are wheat, peas, cotton, wool, with excellent pastures, honey, wax, provisions of all kinds; but mahogany and logwood form the principal exports. Chief towns, Valladolid, the capital, Truxillo, Gracias a Dios, St Jago, and Omoa. The part lying on the northern and eastern coast is known by the name of the *Mosquito Shore*, and is situated between 16° 10′ and 10° 25′ N. lat., and between 83° 55′ and 87° 50′ W. lon. It belongs to the Mosquito Indians. The British have settlements in the country.

HONDURAS; a large bay between cape Catoche and cape Honduras, having the coast of the province of Honduras south, that of Yucatan west, and the Caribbean sea east. Lat. 15° 30′ to 21° 30′ north. It is well known, from the British settlement of Balise, on the coast of Yucatan, formed for the purpose of cutting mahogany and dyewoods. The town of Balise contains about 200 whites, upwards of 500 free people of colour, and about 3000 slaves. Besides mahogany and logwood, the country produces various other kinds of valuable trees, and the soil is very fertile, adapted to sugar, coffee, indigo, cotton, and all the West India productions. The approach of the extensive coast which lies contiguous to the bay of Honduras is at all times dangerous, more especially so during the continuance of the north winds.

HONEY; a vegetable product, very similar in its properties to sugar. It is found, in large quantities, in a number of vegetables, is collected by the bee, and is fed upon by many insects. It is always formed in the flower, chiefly at the base of the pistil, and it seems designed to receive and retain the fecundating pollen. Honey differs much in colour and in consistence; it contains much saccharine matter, and, probably, some mucilage, from which it derives its softness and viscosity. Honey very readily enters into the vinous fermentation, and yields a strong liquor, called *mead*. There are two species of honey; the one is yellow, transparent, and of the consistence of turpentine; the other white, and capable of assuming a solid form, and of concreting into regular spheres. These two species are often united; they may be separated by means of alcohol, which dissolves the liquid honey much more readily than the solid. Honey has never been accurately analysed, but some late experiments go to prove it to be composed of sugar, mucilage, and an acid. The honey made in mountainous countries is more highly flavoured than that of low grounds. The honey made in the spring is more esteemed than that gathered in the summer; that of the summer more than that of the autumn. There is also a preference given to that of young swarms. Yellow honey is obtained, by pressure, from all sorts of honeycombs, old as well as new, and even from those whence the virgin honey has been extracted. The combs are broken, and heated, with a little water, in basins or pots, being kept constantly stirring; they are then put into bags of thin linen cloth, and these into a press, to squeese out the honey. The wax stays behind in the bag, excepting some particles, which pass through with the honey.

Honey is the production of most countries, yet more abundant in the island of Candia, and in the greater part of the islands of the Archipelago, than any where else. The Sicilian honey seems to be particularly high flavoured, and in some parts of the island, even to surpass that of Minorca, which, no doubt, is owing to the quantity of aromatic plants with which that country is overspread. This honey is gathered three times in the year, in July, August, and October. It is found, by the peasants, in the hollows of trees and rocks. The country of the lesser Hybla is still, as formerly, the part of the island that is most celebrated for this article. Considerable quantities of honey are produced by the wild bees, in the woods of North America.

Honey is used in preserves and confectionery, and, in its pure state, to put upon bread; also as a demulcent medicine against hoarseness, catarrhs, &c., and externally, as a softening application, to promote suppuration. It is used, in its clarified state, to sweeten certain medicines. It is more aperient and detergent than sugar, and is particularly serviceable in promoting expectoration in disorders of the breast, and as an ingredient in cooling and detergent gargarisms. For these, and other similar purposes, it is sometimes mixed with vinegar, in the proportion of two pounds of clarified honey to one pint of the acetic acid, boiled down to a proper consistence over a slow fire, and thus forms the oxymel simple of the shops. It is also impregnated with the virtues of different vegetables, by boiling it in the same manner, with their juice or infusions, till the watery parts have exhaled. It is the basis of several compositions in pharmacy, though in this way it is less used than formerly. It is also used in making mead. When collected from poisonous plants, as *rhododendron ponticum*, &c., it partakes of the qualities of the plants. The inferior qualities of honey, and what remains when it is purified, can be used in the preparation of brandy, vinegar, &c.

Honey, as may be easily imagined, was one of the first articles of human nourishment. The gods of Greece were imagined to live on milk and honey (ambrosia). Aristotle, Celsus, Pliny, Ælian, and probably the ancients in general, did not know where honey originally came from; they thought it was a dew which fell from heaven. Pliny does not decide whether it issued from the heavens in general or from the stars, or was a juice produced by the purification of the air, and which afterwards was collected by the bees. The juice of the flowers, they believed, produced only the wax. Hence we find the honey flowing from the trees in great abundance, in the descriptions which the poets give of the golden age. In the Bible, we find mention made of bees' honey, grape honey (must, boiled to a syrup, and still used), and tree honey, which is found upon the leaves of certain trees and shrubs, having been thrown out by certain insects (*aphis*, L.) In all the works on agriculture left by the ancients, we find much importance attached to honey and the care of bees. The ancients also ascribed medicinal powers to honey. In their domestic concerns, they used it as we do sugar, and made of it and good old wine a mixture very much liked. This was the

tributed among the soldiers when they returned in triumph.

Honey-comb; a waxen structure, full of cells, framed by the bees, to deposit their honey and eggs in. The construction of the honeycomb seems one of the most surprising parts of the works of insects; and the materials of which it is composed, which, though evidently collected from the flowers of plants, yet do not, that we know of, exist in them in that form, have given great cause of speculation. The wax is secreted, by the peculiar organisation of the insect, in the form of small and thin oval scales in the incisures or folds of the abdomen. The regular structure of the comb is also equally wonderful. The comb is composed of a number of cells, most of them exactly hexagonal, constructed with geometrical accuracy, and arranged in two layers, placed end to end, the openings of the different layers being in opposite directions. The comb is placed vertically; the cells, therefore, are horizontal. The distance of the different cakes of comb from each other is sufficient for two bees to pass readily between them, and they are here and there pierced with passages affording a communication between all parts of the hive. The construction of the cells is such as to afford the greatest possible number in a given space, with the least possible expenditure of material. The base of each cell is composed of three rhomboidal pieces, placed so as to form a pyramidal concavity. Thus the base of a cell on one side of the comb is composed of part of the bases of three on the other. The angles of the base are found, by the most accurate geometrical calculation, to be those by which the least possible expense was required to produce a given degree of strength. The sides of the cells are all much thinner than the finest paper; and yet they are so strengthened by their disposition, that they are able to resist all the motions of the bee within them. The effect of their thrusting their bodies into the cells would be the bursting of those cells at the top, were not these well guarded. But, to prevent this, the creatures extend a cord, or roll of wax, round the verge of every cell, in such a manner that it is scarce possible they should split in that particular part. This cord, or roll, is, at least, three times as thick as the sides of the cell, and is even much thicker and stronger at the angles of the cells than elsewhere, so that the aperture of each cell is not regularly hexagonal, though its inner cavity be perfectly so. The cells which have served or are to serve for the habitation of the worms of the common and of the male bees, are often made also, at other times, the receptacles of honey; but, though these are indifferently made to serve either use, there are others destined only to receive honey. The celerity with which a swarm of bees, received into a hive where they find themselves lodged to their minds, bring their works of the comb to perfection, is amazing. There are vast numbers at work all at once; and, that they may not incommode one another, they do not work upon the first comb till it is finished, but, when the foundation of that is laid, they go to work upon another, so that there are often the beginnings of three or four stories made at once, and so many divisions allotted to the carrying on the work of each.

HONEY LOCUST, SWEET LOCUST, or BLACK LOCUST (*gleditschia triacanthos.*) This lofty and beautiful tree seems to belong, properly, to the region west of the Alleghany mountains, occurring, however, within the valleys of those mountains; but on approaching the Atlantic coast, it entirely disappears, except in the vicinity of habitations, where it is frequently planted for the sake of ornament. It belongs to the natural family *leguminosæ*. The leaves are pinnated, divided into numerous small leaflets, which give a light and very elegant appearance to the foliage; the flowers are greenish and inconspicuous, and are succeeded by long, flat, pendulous, and often twisted pods, containing the large brown seeds, enveloped in a pulp, which, when arrived at maturity, is extremely sweet. This tree is especially remarkable for its formidable branching thorns, frequently growing to the length of several inches, on which account it has been recommended for hedges. The wood resembles that of the locust, but is coarser grained, and, notwithstanding its excessive hardness, when well seasoned, is but little esteemed.

The *G. monosperma*, a tree inferior in dimensions to the preceding, and distinguished by its pods, containing a single seed, inhabits also the Western States, but it is a more southern plant, and reaches the Atlantic in lower Carolina and Georgia. The wood is inferior in quality. A third species (*G. brachycarpa*) inhabits the same countries with the preceding.

HONEYSUCKLE, or WOODBINE. Several species of *lonicera* are cultivated for the beauty or delightful fragrance of their flowers. They are shrubby vines, with opposite simple leaves and long tubular flowers, disposed in terminal heads, or whirls. The *L. caprifolium*, a native of Europe, is a familiar and favourite plant, especially remarkable for the delicious perfume of its flowers, which are irregularly divided, as in most of the genus. The *coral honeysuckle*, a scarcely less familiar plant, inhabits the southern parts of the United States and Mexico, and differs from the preceding in its red flowers being destitute of fragrance, and having the margin of the corolla regularly and not deeply divided. It was introduced into Europe in the year 1656, and is now frequent there in gardens. Both these species, as well as many others, are hardy plants and of easy cultivation. Five other species inhabit the United States, principally in the northern or mountainous districts. The term *honeysuckle* is often improperly applied to a kind of clover, as also, in America, to some species of *azalea*.

HONFLEUR; an irregularly built and ill fortified town of France, in the department of Calvados, on the Seine, opposite to Havre de Grace. Thirty miles N. E. Caen; lon. 0° 14′ 14″ E.; lat. 49° 25′ 13″ N. It has a good harbour, and some maritime trade. It has manufactures of lace, hardware, vitriol, cordage, &c. Population, 9798.

HONG MERCHANTS; a body of 8 to 12 Chinese merchants at Canton, who alone have the privilege of trading with Europeans, and are responsible for the conduct of the Europeans with whom they deal.

HONORARIUM; the pecuniary reward for actions, services, or works whose value cannot, in fact, be estimated in money (*operæ liberales*).

HONORIUS; the first Roman emperor of the West; son of Theodosius the Great. He succeeded his father, with his brother Arcadius, A. D. 395. He was neither bold nor vicious, but he was of a modest and timid disposition, unfit for enterprise and fearful of danger. He conquered his enemies by means of his generals, and suffered himself and his people to be governed by ministers who took advantage of their imperial master's indolence and inactivity. He died of a dropsy, in the thirty-ninth year of his age, A. D. 423. He left no issue, though he had married two wives. Under him and his brother, the Roman power was divided into two different empires. The successors of Honorius, who fixed their residence at Rome, were called the emperors of the West, and the successors of Arcadius, who sat on the throne

of Constantinople, were distinguished by the name of emperors of the Eastern Roman empire. This division of power proved fatal to both empires, and they soon looked upon one another with indifference, contempt, and jealousy.

HONORIUS (popes of the name).

Honorius I. was elected pope in 626. He favoured the heresy of the Monothelites, which was condemned by the sixth council of Constantinople. He died in 638.

Honorius II., elected pope in 1124, was, at the time of his election, bishop of Ostia. A part of the bishops and cardinals had previously invested cardinal Thibaut with that dignity; but, both candidates having resigned, Honorius was re-elected. He died 1130.

Honorius III. was raised to the papal chair 1216, on the death of Innocent III. Immediately on his election, he wrote to the king of Jerusalem to assure him of his support; to the bishops of France, to encourage pilgrims; and to the emperor of Constantinople, to promise him assistance against the schismatics. John, king of England, had left to his successor, Henry III., the burden of a war with the French prince Louis, who laid claim to the English throne, and had been encouraged in his pretensions by Innocent. Honorius reconciled the barons with Henry, and obliged Louis to renounce his pretensions. The pope then turned his attention to the crusades, and crowned Frederic II. emperor of Germany, on condition that he would go to Palestine within two years. In France, he instigated Philip Augustus and Louis VIII. to support the war against the Albigenses. He died in 1227, and was succeeded by Gregory IX.

Honorius IV. was elected pope in 1285. He supported the French king, Philip the Bold, in the war against Peter of Arragon. He died in 1287.

HONOUR, in law, is used especially for the more noble sort of seigniories, on which other inferior lordships or manors depend by performance of some customs or services to those who are lords of them. Before the statute 18 Edward I., the king's greater barons, who had a large extent of territory holden under the crown, frequently granted out smaller manors to inferior persons, to be holden of themselves, which therefore now continue to be held under a superior lord, who is called, in such cases, the *lord paramount* over all these manors; and his seigniory is frequently termed an *honour*, not a manor, especially if it has belonged to an ancient feudal baron, or been, at any time, in the hands of the crown. When the king grants an honour with appurtenances, it is superior to a manor with appurtenances; for to an honour, by common intendment, appertain franchises, and, by reason of those liberties and franchises, it is called an *honour*.

HONOUR, Courts of. There is a court of honour, over which the earl-marshal of England presides, which determines disputes concerning precedency and points of honour.

HONOUR, Legion of. See *Legion of Honour*.

HONOUR, Maids of; ladies in the service of European queens, whose business it is to attend the queen when she appears in public. In England, they are six in number, with a salary of £300 each.

HONOUR, Point of. See *Duel*.

HONOURS OF WAR are stipulated terms which are granted to a vanquished enemy, and by which he is permitted to march out of a town, from a camp or line of intrenchments, with all the insignia of military etiquette.—In another sense, they signify the compliments which are paid to great personages, military characters, when they appear before an armed body of men, or such as are given to the remains of a deceased officer. The particular circumstances attending the latter depend greatly upon the usages of different countries.

HONTAN, baron de la; a native of the province of Gascony, in France, who served as a common soldier in Canada, and afterwards as an officer. He was sent to Newfoundland as king's lieutenant; but, in consequence of disputes with the governor, he was disgraced, and retired first to Portugal, and then to Denmark. His travels in North America (Amsterdam, 1705, 2 vols. 12mo) afford some curious details respecting the Indian tribes; but the work is written in a barbarous style, and its authenticity is very questionable.

HONTHEIM, Johann Nicolaus von, descended from an ancient and noble family in Treves, was born in 1701, and educated by the Jesuits. He studied law, became afterwards a clergyman, travelled to Rome, and made himself acquainted with the policy and abuses of the ecclesiastical government. On his return, he was appointed, by the elector of Treves, counsellor of the consistorium, and, soon afterwards, professor of the civil law. In 1748, he was made suffragan of the archbishopric. Between 1750 and 1760, he wrote a history of Treves in Latin; and, in 1763, under the assumed name of Justinus Febronius, a bold work, which procured him much reputation, On the Condition of the Church and the lawful Power of the Pope. This was likewise in Latin. Though he was an ardent Catholic, and dedicated the work to the pope, yet the usurpations of the Romish see are here attacked with so much boldness, that the author was persecuted, and the work prohibited by the court of Rome. He died in 1790, at Montquintin, much esteemed for his piety and benevolence.

HONTHORST, Gerard, a celebrated artist, called also *Gerard delle Notti*, from his subjects, was born at Utrecht, in 1592, and was a disciple of Abraham Bloemart. He completed his studies at Rome, and imitated the style of Caravaggio. His subjects are generally night pieces, as large as life, and illuminated by torch or candle light. Among his numerous pictures, that of Jesus Christ before the Tribunal of Pilate, in the Giustiniani gallery, is the most celebrated. He visited London, and obtained the favour of Charles I. by many able performances, and, on his return to Holland, was much employed by the prince of Orange. The pencil of Honthorst is free and firm, and his colouring has a great deal of force, although often unpleasing, from a predominancy of brown and yellow tints; with more grace and correctness in his figures, he would have been an excellent painter. He died in 1660, aged sixty-eight.—William Honthorst, brother to the above, painted portraits, which are highly esteemed.

HOOD, Robin. The severity of the tyrannical forest laws, introduced into England by the Norman kings, and the great temptation to break them in the case of persons living near the royal forests, at a time when the yeomanry of the country were everywhere trained to the use of the long-bow, and excelled all other nations in the art of shooting, must constantly have occasioned great numbers of outlaws, especially among the best marksmen. These naturally fled to the woods for shelter, and, forming into troops, endeavoured, by their numbers, to protect themselves from the dreadful penalties of their delinquency. The ancient punishment for killing the king's deer was, loss of eyes and castration—a punishment worse than death. This will account for the troops of banditti which lurked in the royal forests, and, from their superior skill in archery and knowledge of all the recesses of those unfrequented solitudes, found it no difficult matter to resist or elude the civil power. Among all those, none was more

famous than Robin Hood, whose chief residence was in Sherwood forest, in Nottinghamshire, and the deads of whose story, as collected by Stow, are briefly these: "In this time (about the year 1190, in the reign of Richard I.) were many robbers and outlaws, among which Robin Hood and Little John, renowned theeves, continued in the woods, despoyling and robbing the goodes of the rich. They killed none but such as would invade them, or by resistance for their own defence. The saide Robert entertained an hundred tall men and good archers, with suche spoiles and thefts as he got, upon whom four hundred (were they ever so strong) durst not give the onset. He suffered no woman to be oppressed, violated or otherwise molested; poore men's goods he spared, abundantlie relieving them with that which by theft he got from abbeys and the houses of rich old carles, whom Maior (the historian) blamethe for his rapine and theft; but of all the theeves he affirmeth him to be the prince, and the most gentle theefe" (*Anals*, p. 159). The personal courage of this celebrated outlaw, his skill in archery, his humanity, and especially his levelling principle of taking from the rich and giving to the poor, have, in all ages, rendered him the favourite of the common people, who, not content to celebrate his memory by innumerable songs and stories, have bestowed on him the dignity of an earl. Indeed, it is not impossible that Robin himself, to gain more respect from his followers, or they, to derive the more credit to their profession, may have given rise to such a report; for we find it recorded in an epitaph which, if genuine, must have been inscribed on his tombstone, near the nunnery of Kirklees, in Yorkshire, where (as the story goes) he was bled to death by a treacherous nun, to whom he applied for phlebotomy. This epitaph gives the year 1247 as the time of his death. See Percy's *Reliques of Ancient English Poetry*, and Sir John Hawkins's *History of Music*, 4to. vol. 3.

HOOD, Samuel, lord viscount; a British admiral, son of an episcopal clergyman in Devonshire, where he was born in 1724. He entered as a midshipman in the navy, in 1740, and, six years after, was promoted to a lieutenancy. In 1754, he was made master and commander; and, in 1759, post-captain. He had the office of commissioner of Portsmouth dock-yard bestowed on him in 1778; but resigned it two years after, on being made a rear-admiral. He was then employed in the West Indies, where he preserved the isle of St Christopher's from being taken by count de Grasse, and was present at the famous defeat of that officer by admiral Rodney, April 12, 1782. His services on this occasion were rewarded with an Irish peerage. In 1784, he was chosen member of parliament for Westminster; but vacated his seat in 1788, on obtaining the appointment of a lord of the admiralty. In 1793, he commanded against the French in the Mediterranean, when he signalized himself by the taking of Toulon, and afterwards Corsica; in reward of which achievements he was made a viscount and governor of Greenwich hospital. He died at Bath in 1816.

HOOFT, Peter Cornelius van; a Dutch historian and poet, born in 1581, at Amsterdam. He translated Tacitus into the Dutch language with great fidelity and perspicuity; published a life of Henry IV. of France, in Latin; a History of the Low Countries, from the Abdication of the Emperor Charles V. to the Year 1598 (2 vols., folio); besides a variety of miscellaneous works, consisting of epigrams, comedies, &c. Louis XIII. made him a knight of the order of St Michael. He was on his way to witness the obsequies of Frederic Henry, prince of Orange, when he was suddenly taken ill, and died on the road, in 1647.

HOOGHLY RIVER, properly the BHAGIRUTTY; a river of Bengal, formed by the junction of the two western branches of the Ganges, the Dummooda and Roopnarain rivers. The entrance to this river is rendered extremely dangerous and difficult, by reason of numerous sand-banks, which are frequently shifting. The spring tides also run up with great violence, advancing at the rate of fifteen miles an hour, and frequently overset boats, and drive ships from their anchorage. All the towns belonging to the European nations, and several others occupied by natives, stand on its banks; and few rivers can boast of a more extensive commerce.

HOOKAH. See *Pipe*.

HOOKE, Nathaniel; celebrated for an elaborate Roman history. The time of his birth is unknown. The first fact known of him is given in a letter from himself to lord Oxford, in which he describes himself as ruined by the South sea infatuation. He was recommended to Sarah, duchess of Marlborough, to aid her in drawing up her Apology, for which service she presented him with £5000, although she afterwards quarrelled with him for endeavouring to make her a Catholic. His zeal for his religion was very great, if not orthodox, he being greatly attached to the mysticism and quietism of the school of Fenelon. It was Hooke who brought the priest to confess Pope on his death-bed. Hooke's great work, his Roman History from the earliest Period to the Accession of Octavius, is comprised in 4 vols., 4to, published in 1733, 1745, 1764, and 1771. It is a performance of great accuracy and critical acumen, the style of which is clear and perspicuous, without being eloquent or masterly. Another work of his upon Roman affairs was Observations on four Pieces upon the Roman Senate (1758, 4to), in which he discusses the opinion of Vertot, Middleton, and Chapman, with some severity in respect to the two latter. He also translated Ramsay's Travels of Cyrus. He died July 19, 1763.

HOOKE, Robert, an English mathematician and natural philosopher, was born in the Isle of Wight in 1635. He was entered of Christ-church college, Oxford, in 1653. In 1658 or 1659, he invented the pendulum-watch; at least, the prior discovery of it is usually assigned to Hooke by the English, while foreigners ascribe it to Christian Huygens. In 1663, he was nominated one of the first fellows of the royal society, and was afterwards a member of the council. In 1664, he was made Cutlerian professor of mechanics to the royal society; and he afterwards became professor of geometry at Gresham college. The next year he published his Micrographia, or Philosophical Descriptions of Minute Bodies. In 1673, he proposed a Theory of the Variation of the Mariner's Compass. His death took place in March, 1703. He published a great number of papers in the Philosophical Transactions, besides which he was the author of Cutlerian Lectures, a volume of Posthumous Tracts (printed in 1705), and Philosophical Experiments and Observations (published by doctor Derham in 1726). Doctor Hooke was a man of undoubted talents, but of a very unamiable disposition. His quarrels with other men of science were generally managed in a way by no means creditable to his character.

HOOKER, Richard, a celebrated divine and theological writer of the sixteenth century, was born about 1553, at the village of Heavitree, near Exeter. His avidity for learning procured him the patronage of bishop Jewel, who, in 1567, sent him to Oxford, where he obtained the place of one of the clerks of Corpus Christi college. He was elected a scholar of his college in 1573; and, in 1577, was chosen a fellow of Christ-church. In 1579, his skill in the Oriental languages procured him the appoint-

ment of deputy-professor of Hebrew; and, in 1581, he took holy orders, and was shortly after made preacher at St Paul's cross, in London. In 1584, he was presented to the rectory of Drayton Beauchamp, in Buckinghamshire. The first four books of his celebrated treatise Of the Laws of Ecclesiastical Polity were printed in 1594. The ensuing year he was presented, by queen Elizabeth, to the living of Bishop's Bourne, in Kent, where he passed the remainder of his life. The fifth book of his great work appeared in 1597; the last three were not published till after his death, in 1600. The Ecclesiastical Polity, written in defence of the church of England, against the attacks of the Puritans, is no less remarkable for learning and extent of research, than for the richness and purity of its style, which entitles its author to be regarded as one of the classics of the Elizabethan age. The most convenient edition is that of Oxford (3 vols., 8vo.). Hooker was also the author of some tracts and sermons.

HOOKER, Thomas, an eminent divine, was born at Marfield, Leicestershire, in 1586. He became a fellow of Emanuel college, Cambridge, and a lecturer in Chelmsford, Essex, but was obliged to give up his ministry in consequence of his refusal to conform to all the rites of the established church. He then kept a school; but, being still persecuted by the spiritual court, he went over, in 1630, to Holland, and, in 1633, embarked for Boston, in America, where he arrived September 4th of that year. The following October, he was ordained pastor of the church in Newtown; but, in June, 1636, he removed with his whole congregation to the banks of the Connecticut river, and may be termed the founder of the colony of that name, and especially of the town of Hartford. Whenever he visited Boston, which he did frequently, he attracted great crowds by the force of his preaching. He died July 7, 1647. He published many volumes of sermons, and various polemical works. His principal production is the Survey of Church Discipline—a work of great merit and research. Mr Hooker was particularly noted for his power in argument.

HOOLE, John, born in London, in 1727, was the son of a watchmaker. At the age of seventeen, he became a clerk of the East India house. In 1758, he began to translate the Jerusalem Delivered, and published the translation in 1763. In 1767, he published a translation of six dramas of Metastasio, in 2 vols.; and the next year brought out his own tragedy of Cyrus, which did not succeed. Timanthes, in 1770, and Cleone, in 1775, were equally unsuccessful, being the whole of his dramatic efforts. In 1773, he published the first volume of his Orlando Furioso, and concluded it in 1783, when it appeared complete in 5 vols., 8vo. He afterwards connected the narrative of the Orlando in twenty-four books, and disposed the stories in a regular series, which alteration by no means superseded his former edition. In 1792, he translated Tasso's Rinaldo, and ended his literary labours with a more complete collection of dramas from Metastasio. Mr Hoole is smooth, but prosaic and monotonous in his versification, and his translations are now nearly superseded. He died in 1803.

HOOP ASH. See *Hackberry*.

HOOPER, William, a signer of the American declaration of independence, was born in Boston, June 17, 1742, and was the son of a clergyman who had emigrated to that city from Scotland. After graduating, in 1760, at Harvard college, he commenced the study of the law, and, on being admitted to the bar, removed to North Carolina, where he soon acquired an extensive practice. In 1773, he was chosen a representative in the provincial legislature, from the town of Wilmington, in which he had fixed his residence, and signalised himself by his opposition to an arbitrary measure of the government. He also wrote several essays, under the signature of *Hampden*, against the same measure. In 1774, he was named a delegate to the general congress about to meet at Philadelphia. In that body he fully maintained his previous reputation. He was the chairman of the committee appointed to report an address to the inhabitants of Jamaica, the draught of which was his work. Shortly after signing the declaration of independence, Mr Hooper was obliged to resign his seat, in consequence of the embarrassed state into which his private affairs had fallen whilst he was occupied with his public duties. He died in October, 1790, at the age of forty-eight years.

HOOPING-COUGH; a disease known by a convulsive, strangulating cough, with hooping, returning by fits, that are usually terminated by a vomiting. It is contagious. Children are most commonly the subjects of this disease, and it seems to depend on a specific contagion, which affects them but once in their life. The disease being once produced, the fits of coughing are often repeated without any evident cause; but, in many cases, the contagion may be considered as only giving the predisposition, and the frequency of the fits may depend upon various exciting causes, such as violent exercise, a full meal, the having taken food of difficult digestion, and irritation of the lungs by dust, smoke, or disagreeable odours. Emotions of the mind may likewise prove an exciting cause. Its proximate or immediate cause seems to be a viscid matter or phlegm lodged about the bronchia, trachea, and fauces, which sticks so close as to be expectorated with the greatest difficulty. The hooping-cough usually comes on with a difficulty of breathing, some degree of thirst, a quick pulse, and other slight febrile symptoms, which are succeeded by a hoarseness, cough, and difficulty of expectoration. These symptoms continue, perhaps, for a fortnight or more, at the end of which time the disease puts on its peculiar and characteristic form, and is now evident, as the cough becomes convulsive, and is attended with a sound, which has been called a *hoop*. The coughing continues, till either a quantity of mucus is thrown up from the lungs, or the contents of the stomach are evacuated by vomiting. On the first coming on of the disease, there is little or no expectoration; or if any, it consists only of thin mucus; and, as long as this is the case, the fits of coughing are frequent, and of considerable duration; but, on the expectoration becoming free and copious, the fits of coughing are less frequent, as well as of shorter duration. The disease having arrived at its height, usually continues for some weeks longer, and at length goes off gradually. In some cases, it is, however, protracted for several months, or even a year. It is seldom fatal, except to very young children, who are always likely to suffer more from it than those of a more advanced age. The danger seems, indeed, always to be in proportion to the youth of the person, and the degree of fever and difficulty of breathing which accompanies the disease, as likewise the state of debility which prevails.

HOP (*humulus lupulus*). This well-known and useful plant is a native of Europe, Siberia, and according to Mr Nuttall, of North America also, being found on the upper parts of the Missouri. In many of the settled parts of the United States it occurs apparently wild, but may have escaped from a state of cultivation. It belongs to the same family with the hemp and nettle. The root is perennial, giving out several herbaceous, rough, twining stems, which bear opposite three to five-lobed leaves, the

male flowers are green, consisting of a perianth, deeply divided into five parts, and five stamens; the fruit is a sort of cone, composed of membraneous scales, each of which envelopes a single seed. These cones are the object for which it is so extensively cultivated, and their principal use is to communicate to beer its strength and their agreeably-aromatic bitter. The young shoots, however, are sometimes boiled and eaten like asparagus; the fibres of the old stems make good cords; and it is, besides, employed in medicine as a tonic, sudorific, and sedative. The cultivation of the hop is more carefully attended to in England than in any other country. A light and somewhat substantial soil should be selected. The time of planting is in the autumn, and that of harvesting about six weeks or two months after the flowers are expanded; if the fruit is suffered to get too ripe, it loses many of its good qualities. Other low plants may be cultivated in the intervals between the hop-poles. The hops, on being gathered, should be taken immediately to the kiln for drying, and afterwards packed in bags, the closer the better will they preserve their smell and flavour. The whole process, from the time of planting to the preparation for the purposes of commerce, requires much experience and many precautions. The crops even are excessively variable, often in a tenfold proportion in different seasons and situations. The excellence of hops is tested by the clammy feeling of the powder contained in the cones.

HOPE, Thomas, an English gentleman of large fortune, the nephew of a very opulent Amsterdam merchant, published, in 1805, Household Furniture and Internal Decorations (folio); subsequently, two superb works on costumes—The Costumes of the Ancients (2 vols., royal 8vo, 1809), and Designs of Modern Costume (folio, 1812). His Anastasius, or Memoirs of a Modern Greek (London, 1819), holds a distinguished rank among modern English works of fiction. It was, for some time, supposed to be from the pen of lord Byron. Mr Hope was a distinguished patron of the fine arts. He died in 1831.

HOP-HORNBEAM. See *Iron-Wood*.

HOPITAL, Michael de l', an eminent chancellor of France, was born in 1505, at Aigueperse, in Auvergne. His father, who was physician and chief manager of the affairs of the constable of Bourbon, sent him to study jurisprudence in the most celebrated universities of France and Italy, where he also distinguished himself by his acquirements in polite literature. He quickly rose in his profession, and, after obtaining the office of counsellor of parliament, was sent ambassador, by Henry II., to the council of Trent. In 1554, he was made superintendent of the royal finances, in which post, by his ability, economy, and integrity, he restored the exhausted treasury, and put an end to the dishonest practices and the unjust emoluments of a horde of rapacious court favourites, whose enmity he encountered with inflexible steadiness. On the death of Henry II., he was introduced, by the Guises, into the council of state, which post he gave up, to accompany Margaret of Valois, duchess of Savoy, as her chancellor. The confusion which followed in France soon made it necessary to recall a minister of so much talent, and he was advanced to the post of chancellor. Although patronised by the house of Guise, and obliged to acquiesce in many things which he disapproved, to prevent a great deal that he disapproved more, he never ceased to advocate toleration, and was the principal author of the edict of 1562, which allowed freedom of worship to Protestants. By this conduct he rendered himself exceedingly odious to the court of Rome, which sought in vain to remove him, until the court came to the sanguinary resolution of exterminating the reformed religion by violence. Finding himself regarded with suspicion and dislike, he anticipated his dismission by a voluntary retreat to his country-house, where, a few days after, the seals were demanded from him, which he resigned without regret, observing, that the affairs of the world were becoming too corrupt for him to take a part in them. In lettered ease, the conversation of a few friends, and in the composition of Latin poetry, in which he took much pleasure, he enjoyed himself with great satisfaction, until the atrocious day of St Bartholomew, in 1572. Upon this event, his friends, fearing that he might be made one of its victims, urged him to take measures for his safety; but he not only disdained to seek concealment, but, when a party of horsemen, whose motive was unknown, advanced towards his house, he refused to close his gates. They were, in fact, despatched by the queen with express orders to save him. On this occasion, he was told that the persons who made the list of proscription pardoned him, when he coolly observed, "I did not know that I had done any thing to deserve either death or pardon." This excellent magistrate and truly great man survived that execrable event a few months only, dying March 13, 1573, at the age of sixty-eight. Distinguished by that firmness of mind, without which the greatest talents are often useless, no one was a more determined enemy to injustice; and the reform in legislation, produced by him, is regarded by the president Hénault and other enlightened writers, as at once highly honourable to his integrity and capacity, and of the greatest benefit to France. It was comprised in various ordinances, particularly that of Moulins, in 1566. His other works are, Latin Poems, of a grave and masculine character; easy, energetic, but diffuse; the best edition of which is that of Amsterdam (1732); Harangues before the Estates of Orleans, from which he appears to have excelled less as an orator than as a poet: Memoirs, containing treaties, state papers, &c.: a Discourse in Favour of Peace; and his Testament. The eulogy of L'Hopital was made a prize subject by the French academy in 1777, and a statue was erected to him by Louis XVI. An essay on his life and writings was published by M. Bernardi, in 1807. Charles Butler published an essay on his life, drawn from this and other French works (1814). It is not very valuable.

HOPITAL, William Francis Anthony de l', marquis de St Mesme; a celebrated French mathematician of the seventeenth century. He was born in 1661, his father being a lieutenant-general in the army, and master of the horse to the duke of Orleans. After being educated at home, under a private tutor, he entered into the army; but was obliged to quit the service on account of the imperfection of his sight. He then devoted himself exclusively to the study of mathematics. At the age of thirty-two, he distinguished himself by solving problems proposed to the lovers of mathematics by James Bernoulli; and, in 1693, he was admitted an honorary member of the academy of sciences at Paris. From that period he published, in the French and foreign journals, solutions of difficult questions, and other mathematical communications. Such was his reputation, that Huygens, profound as was his acquaintance with science, did not disdain to apply to him for information relative to the nature of the differential calculus. This led to the publication of his treatise, entitled *Analyse des infiniment Petits* (1696), the first French work on the subject, of which a new edition was published by Lefevre (Paris, 1781, 4to). The marquis de l'Hopital continued his researches with

ardour till his death, which took place in 1704. Besides the works mentioned, he was the author of *Les Sections Coniques, les Lieux Géométriques, la Construction des Equations*; and *Une Théorie des Courbes Méchaniques* (4to). He was, in private life, a man of integrity, of an open and candid disposition, and of agreeable and polished manners, suited to his station in society.

HOPKINS, Lemuel, an American physician and author, was born at Waterbury, Connecticut, in 1750. He commenced the practice of medicine at Litchfield, but, after some years, removed to Hartford, where he enjoyed a high reputation. He died April 14, 1801, in the fifty-first year of his age. As a physician, he inspired the greatest confidence by his skill and unremitting attention. Whenever he became much interested in a case, his attentions were unceasing. Denying all other calls, he would devote his days and nights, often for a considerable time, to the case, and not unfrequently administer every dose of medicine with his own hand. The antiphlogistic regimen and practice in febrile diseases was introduced by doctor Hopkins, physicians having previously been accustomed to pursue, with regard to them, the alexipharmic practice. He was also distinguished as a literary character, and was a prominent member of that association of gentlemen called the *Hartford wits*. With Trumbull and Barlow, he wrote the Anarchiad, a satirical work, in twenty-four numbers, which contributed much to draw the attention of the public to the precarious state of the union under the old confederation. At a later period, he was joined with others in the publication of the Echo, Political Greenhouse, &c., which were intended to give a tone to the public feeling and sentiment in favour of the administration of Washington.

HOPKINS, Samuel, D. D., an American divine, and founder of the sect called *Hopkinsians*, was born September 17, 1721, in Waterbury, Connecticut, and was graduated at Yale college, in 1741. Soon afterwards, he engaged in theological studies at Northampton, Massachusetts, under the superintendence of Mr Edwards, and, in 1743, was ordained at Housatonic, now Great Barrington, Massachusetts, where he continued until 1769, when he removed to Newport, Rhode Island, in consequence of the diminution of his congregation and the want of support. When he had resided for some time in this place, the people became dissatisfied with his sentiments, and resolved in a meeting to intimate to him their disinclination to his continuance amongst them. On the ensuing Sunday, he preached to them a farewell discourse, which was so interesting and impressive, that they besought him to remain. He did so until his death, December 20, 1803. Doctor Hopkins was a pious and zealous man, with considerable talents, and almost incredible powers of application. He is said to have been sometimes engaged during eighteen hours of the day in his studies. He published numerous sermons, besides various other works, the principal of which are a Dialogue, showing it to be the Duty and Interest of the American States to emancipate all their African Slaves (1776); a System of Doctrines contained in Divine Revelation, explained and defended, to which is added a Treatise on the Millennium (two volumes, 8vo, 1793), and a sketch of his own life. His theological opinions, which are in part those of the celebrated Jonathan Edwards, have given birth to the most earnest controversy. For a full account, see the *Dictionary of all Religions*, by Hannah Adams, article *Hopkinsians*; the work of doctor Ezra Stiles Ely, entitled a *Contrast between Calvinism and Hopkinsianism*, and the third volume of the *General Repository* (Cambridge, 1813), where the whole subject is ably reviewed.

HOPKINS, Stephen, a signer of the American declaration of independence, was born March 7, 1707, in that part of Providence which now forms the town of Scituate. After receiving a common education, he pursued his father's occupation of farming, until 1742, when he removed to Providence, which continued to be his home until his death. In 1732, he was elected a representative to the general assembly from Scituate, and was chosen speaker of that body in 1741. The following year, he removed, as we have said, to Providence, where he engaged in mercantile business. He had resided in this town but a few months, when he was chosen to represent it in the assembly, of which he was again made speaker. In 1751, he was appointed chief justice of the superior court of Rhode Island. In 1754, he was a commissioner from that colony to the convention which met at Albany for the purpose of securing the friendship of the Five Nations of Indians in the approaching French war, and establishing a union between the colonies. In 1756, he was elected governor of Rhode Island, and continued to hold that office, with the exception of three years, until 1767. In that year he retired from it voluntarily, in order to appease a party dispute by which the colony was distracted. He was at the head of one party, and governor Ward of the other, and, to effect a union of opposing interests, he prevailed upon his friends and his opponents to join in choosing a third person. In 1774, he was chosen a delegate to the general congress which was to meet at Philadelphia, and the next year was a second time appointed chief justice of the superior court of the province. He was re-elected to congress in 1775, and in 1776. His signature to the declaration of independence is indicative of a tremulous hand, owing to a nervous affection, which compelled him, when he wrote, to guide his right hand with his left. In 1778, he was a fourth time chosen a member of congress, where he was of particular service to the committees appointed to fit out armed vessels, and to devise ways and means for furnishing the colonies with a naval armament, and in the deliberations on the rules and orders for the regulation of the navy, in consequence of his intimate acquaintance with the business of shipping. He died July 13, 1785, at the age of seventy-eight. Although Mr Hopkins had received a very limited education, he had acquired, by his own exertions, extensive information. His Pamphlet entitled, the Rights of the Colonies Examined, contains an able exposition of the injustice of the stamp act, and various other measures of the British government, and was published by order of the general assembly, in 1765. As a mathematician, he particularly excelled, and he assisted in the observations on the transit of Venus over the sun's disk, in June, 1769. He was a member of the American philosophical society, and, for many years, he was also chancellor of the college of Rhode Island. To him Providence is mainly indebted for its library. As a speaker, he was clear, pertinent, and powerful; sometimes energetic, but generally calm, rational, and convincing.

HOPKINSON, Francis, an eminent American author, and one of the signers of the declaration of independence, was born in Philadelphia, in 1738, to which city his parents had emigrated from England. His father was the intimate friend and scientific coadjutor of Franklin, to whom, it is said, he first exhibited the experiment of attracting the electric fluid by a pointed instead of a blunt instrument. Francis was educated at the college of Philadelphia. After graduating there, he studied law, and, in 1765,

isited England, where he remained for two years. n his return, he fixed his residence at Bordentown, ew Jersey, and entered congress as a delegate from ew Jersey, in 1776. Doctor Rush asserts that his atires contributed greatly to the cause of his ountry's independence. He began this warfare in 774, with his Pretty Story, in the strain of the Tale f the Tub, and prosecuted it, from year to year, ith such productions as the Prophecy, the admir- ble Political Catechism, the various letters of tories nd of British travellers, and answers to British roclamations and gazette accounts, &c. After the ar, he employed his irony against domestic evils, articularly against the intemperance of parties, the haldry of the newspapers, and the exaggerations nd prejudices with which the present federal consti- ution was at first assailed. After his retirement om Congress, he received the post of judge of the dmiralty for Pennsylvania, and, in the year 1790, assed to the bench of the district court. He died 1791. The selection of his works, in three olumes, printed in 1792, and entitled, the Miscel- aneous Essays and occasional Writings, &c., embraces erious compositions in prose, marked by deep sensi- ility, strong thought, and multifarious knowledge; apers on subjects of physical science; a number of cute and learned judicial decisions, &c. His songs ossess much sweetness and delicacy, and the airs hich he composed for them rendered them doubly opular. The Battle of the Kegs is a specimen of is facetiousness in verse, and his *L'Allegro* and *Il 'enseroso* are graphic and agreeable imitations.

HORACE. See *Horatius Flaccus*.

HORÆ. See *Hours*.

HORAPOLLO. We have a work in Greek, alled *Hieroglyphica*, under the name of *Horapollo*, retended to have been translated from the Egyptian y a certain Philip, of whom nothing is known. The ork is of little value, noticing merely a few sym- olical hieroglyphics, and these not always correctly. he best edition is De Pauw's (Greek and Latin), trecht, 1727.

HORARY, OR HOUR CIRCLE OF A GLOBE, is small brasen circle, fixed upon the brasen meridian, ivided into twenty-four hours, having an index ovable round the axis of the globe, which, upon rning the globe fifteen degrees, will show what laces have the sun an hour before or after us.

Horary Circles or Lines, in dialling, are the lines r circles which mark the hours on sun-dials. See *ial*.

Horary Motion of the Earth; the arch it describes the space of an hour, which is nearly fifteen egrees, though not accurately so, as the earth oves with different velocities, according to its reater or lesser distance from the sun.

HORATII. The Horatii were three Roman rothers, who, according to tradition, under the eign of Tullus, and at his suggestion, engaged the ame number of Alban brothers (the Curiatii), in rder to decide the contest between the two nations. Dionysius of Halicarnassus, to complete the wonder, elates that they were the sons of two sisters, and orn at the same time. A sister of the Horatii was kewise betrothed to one of the Curiatii; but both ides forgot their private relations in the service of heir country. Tullus, having received the consent f the Horatii, which their father approved, in the resence of the Roman army, solemnly consecrated he brothers, and devoted them to the protection of he gods. The same was done also on the side of he Albans. The field of battle was then marked ut by both sides, on a large plain, after they had worn, on the common altar of sacrifice, that the ountry of the conquered should submit to that of the conquerors. The champions then stepped forth into the place marked out for the contest. The combat was furious; two of the Romans soon fell: the Albans gave a shout of joy; the Romans encouraged the surviving Horatius. The contest was unequal, but art compensated for the inferiority of strength. The Horatius saw his antagonists faint with the loss of blood. He himself remained unwounded. In order therefore to separate them from one another, he feigned flight, and, while they pursued him as well as their wounds would permit, he suddenly turned back, slew his antagonists, thus separated from each other, and thus decided the sovereignty of his country over the Albans. He was conducted back to the city amidst the rejoicings of the Romans, adorned with the spoils of the slain. There he saw, in the crowd, his sister, in tears for the death of her betrothed Curiatius. She uttered with loud lamentations the name of her lover, whose military cloak, which she herself had wrought for him, hung, a bloody trophy, over the shoulders of her brother. Provoked that her lamentations for her lover should mingle with the rejoicings of the nation on his victory, the brother plunged his dagger into her breast. According to the strict justice which the Romans ever exercised, he should have been condemned to death. This indeed was done, without regard to the deed by which he had rendered such services to his country. The sentence was already about to be put in execution, when Horatius, by the advice of Tullus, appealed to the people. The people could not endure the tears of the old father, who, but a short time before surrounded by his children, was now about to be deprived, by a shameful death, of the last of his sons. The deliverer of his country was absolved from the pain of death; nevertheless, he was obliged, in order to satisfy the law and atone for the murder, to march, with his head covered, under a beam placed across the street (as if under the yoke), which was considered by the Romans as an ignominious punishment.

HORATIUS COCLES. When the Etrurian king Porsenna, to whom the banished Tarquins had fled, advanced against Rome (B. C. 507), tradition relates that a courageous man of this name opposed himself singly to the enemy, and held them in check, till the bridge over the Tiber was broken down behind him at his own request. Though enfeebled by wounds, he then plunged into the stream with his armour, and, in the midst of the darts of the enemy, reached the opposite bank of the Tiber in safety. The nation rewarded him with a monument, and his fellow citizens hailed him as the saviour of his country. He is said to have been a relation of the Horatii, and to have received the surname of *Cocles*, from the circumstance of having lost an eye in battle.

HORATIUS FLACCUS, QUINTUS. Quintus Horatius Flaccus was born at Venusium, a city lying on the borders of Lucania and Apulia, Dec. 7, 689 A. U. C. (B. C. 65). His father, a freedman, but, as the son says, of a pure life and heart, was possessed of a small fortune, which he employed for the education of his son. For this purpose he went to Rome, where he became a broker or a receiver of taxes, and afforded the young Horace the best opportunities for the cultivation of his mind, that his means would allow. He caused him to be taught the liberal arts, supported him in the same manner as youths of the best families lived, and was himself a watchful guardian of his morals and an example of virtue, as the grateful son informs us in his Satires (Book I, Serm. 6, 66—92). Orbilius Pupillus, a grammarian, who explained the poems of Homer and Livius Andronicus, was the first teacher of Horace, who, while yet young, made great progress in the study of

Greek literature. At the age of twenty years, he went to Athens to continue his studies. At this time, the most important changes were taking place in Rome. Julius Cæsar was assassinated; Brutus and Cassius, the last props of the sinking republic, leaving Italy, came to Athens, prepared themselves there for the war, and received into their army the Roman youth who studied there. Among these was Horace, who followed Brutus to Macedonia. While at Rome, M. Lepidus, M. Antony and Octavius Cæsar declared themselves triumvirs of the republic for five years, and divided the provinces among themselves. Horace was legionary tribune in the army of Brutus, and fought in the last battle for the freedom of Rome, at Philippi in Macedonia (B.C.42). Brutus and Cassius fell; Horace saved his life by flight. Some persons, understanding neither his fine irony nor his delicate turn of expression, have concluded, from one of his odes (Book II. Ode 7), that the poet fled in a disgraceful manner; but Lessing has victoriously defended him from this, as from other charges. (See the *Defence of Horace*, Lessing's complete works, vol. 3, page 191.) Liberty of return was granted to the vanquished, and Horace availed himself of the opportunity. His father was now dead; his paternal estate was confiscated; poverty, as he himself says (Epistles, Book II. Epistle 11, 49 et seq.), compelled him to make verses. Whether this expression was meant literally, as many believe, is uncertain, as he had a moderate support from the station of clerk to the questor. But he could not have employed his leisure hours in a nobler manner than in the exercise of the talent which nature had so richly bestowed upon him; nor could he have chosen a better way to soothe those feelings which, in contemplating the occurrences of his time, must often have powerfully disturbed his inmost soul. But he also had recourse to philosophy. He chose therefore a species of poetry particularly adapted to a poetical and philosophical spirit — the didactic. The seventh satire of the first book is the first poem of this kind which he preserved. The talent which he displayed procured him the friendship of two eminent poets, Virgil and Varius, and to them he was indebted for his first acquaintance with Mæcenas, a refined man of the world, who, without leaving his private station, was the friend and confidant of Augustus Cæsar, and who expended his wealth willingly for the embellishment of social life, by the encouragement of literature and the arts. Nine months after, Mæcenas received Horace into the circle of his intimate friends, and, after some years, presented him with the Sabine estate, which Horace so often mentions in his poems. If the poet did not acquire a still more splendid fortune, the fault lay in himself. The recollection of the republic and the party which he served continued too vivid in his heart, to permit him to court the favour of the powerful usurper. The three notes of Augustus to him, which Suetonius has preserved in the life of the poet, prove that he rather avoided it. He even declined the proposal which Augustus made to him through Mæcenas, to enter his service and undertake the management of his private correspondence, under the pretence of ill health. Having witnessed such striking examples of the instability of fortune, he withdrew from the tumult at Rome, and preferred the retirement of his Sabine farm to a more brilliant life. Almost all his poems addressed to Mæcenas celebrate love and freedom, and express indifference to that happiness which depends on the will of another, and contentedness in a situation in which he found himself rich above his wishes. He did not, however, make a parade of rusticity, or deem a strict, morose manner of life necessary to virtue: he rather displayed a genuine urbanity, which finds a tone adapted to every circumstance. He has left us four books of odes; a book of epodes, so called, which differ from the odes not only in metre, the second verse being always shorter than the first, but also in the sentiment, which would rather rank them among the satires, in which he took Archilochus as a pattern; two books of satires, and two books of epistles, one of which (that addressed to the Pisos) is often cited as a separate work, under the title of *Ars Poetica*.

In appreciating Horace as a lyric poet, it must not be forgotten that he was the first among the Romans who formed the Roman language for lyric poetry and applied it, with no small labour, to the different Greek metres. Uninterrupted study and perseverance only could have effected so masterly a structure of the verse. It is said, indeed,—and it cannot be denied,—that the greater part of the odes of Horace are only imitations of Greek masters—Archilochus, Alcæus, Stesichorus, Sappho, and others—and therefore so full of Greek forms, terminations, and constructions, in particular parts, indeed, mere translations from the Greek. Many have made use of this objection to detract from the poetical fame of Horace. But, granting that originality cannot be attributed to Horace as a lyric poet, no one can deny it to him as a satirist. As didactic satire in general was a Roman invention, so it was Horace who, following Ennius, Pacuvius, and Lucilius, by whom its form and object had been defined, gave it a peculiar tone. The satires of Horace, among which may be included his epistles, since they differ little from the others, except in their title, and in being addressed to an individual, have more or less a comic character, and are to be judged only in this point of view. Horace does not expose vices so much as follies, which he places in a ridiculous light: he sees more folly than vice in the world, and even declares himself not exempt from a portion of it. Nevertheless, he seeks to amend follies as far as possible, because he considers them pernicious. To prejudices and errors he opposes his philosophy, which, so far from imbittering or even forbidding the enjoyments of life, only exhorts to a prudent vigilance, and teaches all the virtues, without which happiness is impossible. The easy, agreeable manner in which he philosophises without appearing to do it, the salt with which he seasons his thoughts, the delicacy and ease with which he expresses himself, afford the most agreeable entertainment. We know not which most to admire, his accurate knowledge of the human heart and of the different classes of men, his love of truth, candour, and ingenuousness, the agreeable tone, the urbanity which, in seriousness, or derision, never forsakes him, the delicacy with which he presents the ridiculous without bringing it out in bold relief, or his skill in delineating characters. He seems not to hunt after follies, or, where he does this, his ridicule is not bitter, and is accompanied with so much good humour, that the person ridiculed might laugh at the picture. His expression is easy and unaffected, and he manages the hexameter with such skill, that he seems to tread the natural path of social conversation. His descriptions are still applicable and interesting, and the poet will therefore ever remain the favourite of those whose morality does not exclude the refinements of life. He composed, at the express command of Augustus, the secular ode for the festival of the centennial games.

Horace died suddenly, in the year of Rome 758, and the 9th B. C., in the 57th year of his age, not long after the death of his patron and friend, Mæcenas, near whose tomb, on the Esquiline, he was interred. Among his earlier commentators are

Acron, Porphyrion, and the scholiast of Cruquius; among his later editors and commentators, we will only mention Dan. Heinsius (first 1605), John Baxter, Bentley (first 1711), Sanadon, Gesner, Zeune, Jani, Mitscherlich (only the odes and epodes) (first edition, Leipsic, 1778—82, 2 vols.; 2d edit., Leipsic, 1800, 2 vols.), Doering (Leipsic, 1803; 2d edit., 1815), Eichstadt, Preis, Heindorf, Fea (Rome, 1811, 2 vols). Wieland's translation of the epistles and satires of Horace contains illustrations of the genius of Horace and his age, and the peculiarities of his works.

HOREB (Arabic, *Djabel Musa*), a mountain in the northern part of Arabia, of the same ridge as mount Sinai, which lies not far distant from it, is memorable in the history of Moses. The monks on mount Sinai still point out the rock on Horeb from which water issued at the blow of Moses.

A small party of Hussites called the mountain between Ledets and Lipnisa, in Bohemia, where they assembled, *Horeb*, and themselves *Horebites*.

HOREHOUND (*marrubium vulgare*); a labiate plant, with whitish, cottony leaves and stem. Like other plants of the same family, it possesses an aromatic odour; but, in this instance, it is strong and unpleasant, and the taste is bitter and penetrating. It is a popular remedy in pulmonary complaints.

HORIZON; the line that seems to link the land or sea and sky; and it is either *rational* or *sensible*. The *rational, true*, or *astronomical* horizon, which is also called simply and absolutely *the horizon*, is a great circle, whose plane passes through the centre of the earth, and whose poles are the zenith and nadir. It divides the sphere into two equal parts or hemispheres. The *sensible, visible*, or *apparent* horizon is a lesser circle of the sphere, which divides the visible part of the sphere from the invisible. Its poles are likewise the zenith and nadir; and, consequently, the sensible horizon is parallel to the rational, and it is cut at right angles, and into two equal parts, by the vertical. These two horizons, though distant from each other by the semi-diameter of the earth, will appear to coincide, when continued to the sphere of the fixed stars, because the earth, compared with this sphere, is but a spot. The sensible horizon is divided into eastern and western. The *eastern* or *ortive* horizon is that part of the horizon wherein the heavenly bodies rise. The *western* or *occidual* horizon is that wherein the stars set. By *sensible horizon* is also frequently meant a circle which determines the segment of the surface of the earth over which the eye can reach; called, also, the *physical horizon*. In this sense we say, a *spacious horizon*, a *narrow, scanty horizon*. It is manifest, that the higher the spectator is raised above the earth, the farther this visible horizon will extend. On account of the refraction of the atmosphere, distant objects on the horizon appear higher than they really are, or appear less depressed below the true horizon, and may be seen at a greater distance, especially on the sea. Legendre says, that, from several experiments, he is induced to allow for refraction a 14th part of the distance of the place observed, expressed in degrees and minutes of a great circle. Thus, if the distance be 14,000 toises, the refraction will be 1000 toises, equal to the 57th part of a degree, or 1′ 3″.

HORIZON OF A GLOBE; the broad, wooden, circular ring in which the globe is fixed. On this are several concentric circles, which contain the months and days of the year, the corresponding signs and degrees of the ecliptic, and the thirty-two points of the compass.

HORIZONTAL DIAL is one drawn on a plane, parallel to the horizon, having its gnomon or style elevated according to the altitude of the pole of the place it is designed for. See *Dial*.

HORIZONTAL RANGE of a piece of ordnance is the distance at which a ball falls on or strikes a horizontal plane, whatever be the angle of elevation or direction of the piece. When the piece is pointed parallel to the horizon, the range is then called the *point-blank*, or *point-blank range*. The greatest horizontal range, in the parabolic theory, or in a vacuum, is that made with the piece elevated to forty-five degrees, and is equal to double the height from which a body must freely fall, to acquire the velocity with which the shot is discharged. But in a resisting medium, like the atmosphere, the elevation of the piece, to shoot farthest, is always below forty-five degrees, and gradually the more below it as the velocity is greater; so that the greater velocities with which balls are discharged from cannon with gunpowder, require an elevation of the gun equal to but about thirty degrees, or even less. And the less the size of the ball is, too, the less must this angle of elevation be, to shoot the farthest with a given velocity. See *Gunnery*.

HORN, in physiology; a tough, flexible, semi-transparent substance. The hollow horns of the ox, goat, &c., the hoof, the horny claw and nail, and the scale of certain insects, as the shell of the tortoise, resemble each other in chemical characters; but they differ very widely from stag's horn, ivory, &c. Horn is distinguished from bone, in being softened very completely by heat, either applied immediately or through the medium of water, so as to be readily bent to any shape, and to adhere to other pieces of horn in the same state. It contains but a small portion of gelatine, and in this it differs from bone, which contains a great deal. Horns consist chiefly of condensed albumen, combined with a small and varying portion of gelatine, with a small part of phosphate of lime. The fixed alkalies readily and totally dissolve horn into a yellow saponaceous liquor. With some animals, the horn is an instrument of defence; with others, not. In some species of animals, the males only have horns; as, for instance, the stag. Female sheep seldom have horns. The female goats have horns, but they are always smaller than those of the male. In cattle, the horn is particularly developed. The bull generally has a shorter, denser, firmer horn than the cow. There are, however, hornless cattle. In the case of most horned animals, the horns are not entirely developed, until they have become capable of continuing their species.

Horns admit of being divided into four kinds, at least: 1. those of the rhinoceros; 2. of the ox, antelope, goat, and sheep; 3. of the camelopard or giraffe; 4. of the deer kind. The horns of the rhinoceros are composed entirely of a horny substance. They are situated not upon the *os frontis*, but on the nasal bones, and are attached to the skull only at the surface of their basis. They appear to be composed of a number of fibres, resembling strong hairs consolidated together. They are not deciduous, but increase from the root or base in proportion as they wear. Those of the second sort are most common. They belong to many of the ruminating quadrupeds, and some birds have similar processes on their heads. They consist of three parts—an osseous substance, a vascular investment, and the external sheath. The bone is first formed. It appears as a knob covered with skin, and movable on the *os frontis*. As it elongates, the skin becomes callous, and appears to wear off, when the osseous process is found to be clothed in a real case of horn. It then becomes fixed to the *os frontis* by anchylosis. The horny case grows from the roots, and the increase in each year is marked by a circular groove near the

root of the horn. The third sort are the short, straight processes on the head of the camelopard, which are a porous bone, united to the *os frontis* by anchylosis, and terminating in a convex knob; the stem is covered with the skin, but the bulb on the end sustains a number of short, strong hairs, analogous to the fibres composing the horns of the rhinoceros. Those of the fourth kind are peculiar to the deer genus. They are composed entirely of bone, and are shed and reproduced annually. They first appear like two small knobs under the skin. These develope their different branches in succession, still covered with the skin, and a delicate, soft hair, forming together what has been called their *velvet coat*, which is extremely vascular. When the horn is completely formed, the velvet coat becomes insensible and dry, and is rubbed off by the deer. (See *Deer*.) The horns of the deer appear to be entirely analogous to the osseous parts of the horns of the other ruminant quadrupeds. The horns of the rhinoceros, and those of the deer, are the two extremes in these organs. The one wants the osseous basis, the other the horny covering. Those of the camelopard and ox exhibit examples of the intermediate structure. Instances are given of horses, cats, and particularly hares, found with horns, but they want confirmation. The human body sometimes produces horny protuberances on various parts.

The horns of animals, literally speaking, formed the most ancient drinking cups. Pindar, Æschylus, and Xenophon make mention of them as being appropriated to this purpose. Philip of Macedon is said to have made use of one. It is from this ancient usage that the general name of *horns* has been given to a species of drinking cup, as, after the actual employment of the animal substance had been discontinued, the shape remained in use. The horns of victims sacrificed to the gods were gilt, and suspended in the temples, more especially in those of Apollo and Diana. From the most remote times, the altars of the heathen divinities were likewise embellished with horns, and such as fled thither to seek an asylum embraced them. Originally, the horns were doubtless symbolical of power and dignity, since they are the principal feature of gracefulness in some animals, and instrument of strength in others. Hence these ornaments have been frequently bestowed on pictorial representations of gods and heroes; ancient medals frequently present the figures of Serapis, of Ammon, of Bacchus, and of Isis, with these additions. The kings of Macedon were actually in the habit of wearing the horns of a ram in their casques, and the same thing is asserted of various other princes and chieftains.

Horn of Plenty. Amalthæa, daughter of Melissus, king of Crete, fed Jupiter with goat's milk: hence some authors have called her a goat, and have maintained that Jupiter, to reward her kindnesses, placed her in heaven as a constellation, and gave one of her horns to the nymphs who had taken care of his infancy. This horn was called the *horn of plenty*, or *cornu copiæ*, and from it issued fruits and flowers, and, in short, all the riches of art and nature. The cornucopia is found on an infinite number of antiques, and is the characteristic attribute of the goddess styled *Εὐθυμια* by the Greeks, and *Abundantia* by the Romans. It is placed in the hands of figures representing countries or towns, to indicate the richness of their territory; and in those of rivers, to express the fertility produced by them. The beautiful statue of the Nile, of which a copy may be seen in the palace of the Tuileries, holds a horn of plenty, full of the productions of Egypt; and on the reverse of the medals of the kings of Egypt, we find two cornucopiæ attached together.

HORN, or BUGLE-HORN; a wind instrument, chiefly used in hunting, to animate the chase and call the dogs together. The hunting horn was formerly compassed, whence the old phrase to "wind a horn."

HORN, French. The French horn, or *cor de chasse*, is a wind instrument, consisting of a long tube twisted into several circular folds, and gradually increasing in diameter from the end at which it is blown to that at which the sound issues. The intervals of the natural scale of the French horn are conformable to those of the trumpet, but its pitch is an octave lower. The natural tones of a horn are,

In order to produce tones which the horn does not otherwise yield, the performer puts his hand into the horn, so as to prevent more or less, the egress of the air. The Germans have done most for the horn, and by their inventions of valve-horns, and even machine-horns, have carried this instrument to much perfection. The horn is not proper for the expression of the grand, but the tender and plaintive. Nevertheless, in Germany, some of the rifle regiments have only horn music, which sounds very finely.

HORN, Cape; a promontory on the south coast of Terra del Fuego, the southern extremity of America. Lon. 67° 46′ W.; lat. 55° 59′ S. See *Cape Horn*.

HORN, or HORNES, Philip II. of Montmorency-Nivelle, count of, one of the most illustrious victims to the policy pursued by Philip II., king of Spain, to maintain the Catholic faith in the Netherlands, was the grandson of John de Nivelle, who, being disinherited by his father, had lost his barony and his paternal fiefs. Philip of Horn, born 1522, sovereign of Horn, Altona, Meurs, &c., one of the richest lords in the Netherlands, was captain of the Flemish guards of the king of Spain, president of the council of state of the Netherlands, and admiral of the Flemish seas. He distinguished himself in the battle of St Quentin, and had an important share in the victory of Gravelines. The ties of blood which united him with the great Egmont, caused him to share his political opinions on toleration. Their connexion with William, prince of Orange, destroyed both. Far from approving his resistance to the royal authority, they remained inaccessible to all his representations. In vain did Orange represent to them that there was no alternative, but either to humble themselves under the absolute will of an inexorable minister, or seek their safety under the banners of freedom. His prophecy was true: duke Alva arrested them both. They were tried and beheaded on the 4th of June, 1568. Philip's brother, Floris, of Montmorency, was likewise beheaded, and thus the race of Montmorency Nivelle became extinct.

HORNBEAM. The European hornbeam, attains large dimensions, and the wood is employed for a variety of useful purposes. The American hornbeam (*carpinus Americana*) is a small tree, rarely attaining the height of 30 feet, sparingly diffused over the whole of the U. States. The leaves resemble those of some species of birch, but the fertile flowers are in large leafy aments. The wood is fine-grained, tenacious, and very compact, but is little used, on account of its inferior size.

HORNBLENDE, or AMPHIBOLE, is one of the most abundant and widely-diffused substances in the mineral kingdom, next to quartz, feldspar, and mica, and is very remarkable on account of the various forms and compositions of its crystals and cry-

alline particles, and of its exceedingly diversified olours, thus giving rise to almost numberless arieties, many of which have obtained distinct apellations. The primitive form of the species is an blique rhombic prism of 124° 30′ and 55° 30′, in hich the terminal planes are inclined to the obtuse teral edges, under angles of 105° and 75°. The rmer planes are easily developed, by cleavage om its crystals and crystalline masses; but the latr have never been obtained in this way, having een inferred from calculation. The crystals of ornblende are generally long, and destitute of reular terminations; they are often deeply striated ngitudinally, and much disposed to intersect each ther, sometimes in such a manner as to give rise to sheaf-like or to a stellular composition. Perfectly egular, implanted crystals do occur occasionally; nd these present, for the most part, the following apes: six-sided prisms, from the truncation of the cute lateral edges of the prism, acuminated by four lanes, corresponding either to the lateral edges or the lateral faces of the prism; the same with an cumination of three planes; the same with dihedral mmits; and the primitive form with dihedral terminations, of which the faces correspond to acute dges of the prism. The massive varieties frequentr offer a granular structure, in which the individuals re of various sizes, and strongly coherent, often with tendency to a slaty fracture; more commonly, owever, the composition of massive varieties is columnar, the individuals being sometimes very long, arallel, or diverging, and, when delicate, producing silky lustre. The lustre of hornblende is vitreous, nclining to pearly, upon the faces of cleavage, in he varieties possessing pale colours. Colour, various shades of green, often inclining to brown, white, nd black, with every intermediate shade; nearly ransparent in some varieties; in others opaque; rittle; hardness about the same with feldspar; pecific gravity, 3.00. Three varieties, analysed by onsdorf, gave the following results:

	A white Variety.	*A green Variety.*	*A black Variety.*
lex,	60.31	45.26	45.69
lagnesia,	24.2	19.03	18.79
ime,	13.66	13.96	13.85
lumine,	0.26	11.48	12.19
rotoxide of iron,	0.15	8.43	7.32
do. of manganese,	0.00	0.36	0.22
luoric acid,	0.94	1.60	1.50
ater and foreign substances,	0.10	1.04	0.00

f those varieties of the present species which have btained distinct names, and which, in some systems mineralogy, have even been regarded as forming parate species, the following are the most remarkae, viz., *hornblende*, *tremolite*, *actynolite*, and cerin kinds of asbestos. Hornblende differs from the st principally by its dark, blackish, or greenish olours, and is divided into three sub-varieties, *saltic hornblende*, *common hornblende*, and *hornende slate*. The first consists of black and perfect-cleavable crystals, which are always found imbedded basaltic or volcanic rocks; the second refers to bedded crystals of various colours, but always of rk shades, and in which cleavage is less easily tained; it includes, besides, all massive, granular, columnar varieties, except such as are black, sily cleavable, and of a shining lustre, which have en distinguished by the name of *carinthin*. Hornende slate comprehends such varieties as consist of inute and closely-aggregated particles, united in ch a manner as to produce a slaty fracture. Trelolite consists of the pale green, gray, bluish, and hite varieties, and has been subdivided into *common*, *glassy*, *asbestiform* and *granular* tremolite. he first occurs in crystals, rarely with perfect terminations, and in massive varieties; the second in columnar compositions, or coarsely fibrous, with a high degree of transparency; the third refers to very thin or capillary crystals; and the fourth consists of granular particles. The varieties of actynolite differ from those of tremolite by their deep (often grass-green) colours. The asbestiform tremolite and asbestiform actynolite form a passage into asbestos, which term is applied not only to minute columnar, and variously-interwoven individuals of this species, but to those also of augite or pyroxene, and may be said to denote rather a peculiar state of aggregation in these species than the substance of a distinct mineral. (For an account of the varieties of asbestos, see *Asbestos*.) The best crystals of basaltic hornblende come from near Teysing and Teplitz, in Bohemia. Common hornblende abounds at Arendal, and other places in Norway and Sweden; a light greenish variety, imbedded in granular limestone, at Pargas, in Finland, has received the name of *pargasite*. The varieties of actynolite and tremolite abound in numerous places in Europe; the former occurring in talcose slate, and the latter in limestone and dolomite rocks. In America this species is also widely disseminated.

HORN-BOOK is a copy of the alphabet, set in a frame and covered with a thin plate of horn, to prevent the paper from being thumbed to pieces by the children who were made to study it. It is now almost, if not quite, antiquated, as an instrument of elementary education.

HORNECK, Ottocar of, one of the oldest historians in the German language, lived in the latter half of the thirteenth and the beginning of the fourteenth century. His native country was Stiria, where his family castle, Horneck, is still to be found. He was instructed in the art of a *minnesinger* by Conrad of Rotenburg. He died after the decline of the Hohenstaufen, when the golden age of chivalric poetry was past. After having been present at the battle of Weidenbach, and accompanied Rodolph of Hapsburg to Bohemia, he returned to his native country, which was delivered from the Bohemian yoke, and enjoyed the favour of the Stirian governor, Otho of Liechtenstein, who resided in the castle at Grats. He employed his talents in writing and rhyming on historical subjects, for which the German prose was not yet adapted. About the year 1280, he composed a work on the great empires of the earth, which concluded with the death of the emperor Frederic II., and is still extant in manuscript, at Vienna. Being encouraged to note down the important events of his own time, he wrote a chronicle, consisting of more than 83,000 verses, which the Benedictine friar Pez, in 1745, published as the third folio volume of his *Scriptores Rerum Austriæ*. It extends from the death of Manfred to the emperor Henry VII., and is therefore important as illustrative of the history of Rodolph and Ottocar, Adolphus of Nassau, and Albert of Austria. It is rich in remarkable events, which the author witnessed, in portraits of eminent men whom he had known, and in description of festivals, tournaments, and battles, at part of which he was himself present. See the *Aus und über Ottokars von Horneck Reimchronik*, by Th. Schacht, Ments, 1821.

HORNEMANN, Frederic Conrad, a celebrated traveller, was born in 1772, at Hildesheim, studied theology at Gottingen, and received an appointment in Hanover. An ardent desire to visit the interior of Africa, induced him, in 1795, to request Blumenbach, the famous naturalist in Gottingen, to recommend him to the African society in London. After having fully convinced himself of the great zeal and capacity of the young aspirant, Blumenbach wrote to Sir Joseph Banks, and Hornemann's proposal was ac-

cepted. He immediately drew up a plan, which he laid before the society, and devoted himself to natural history and the Oriental languages, with the greatest zeal. In Feb. 1797, he was in London, where the society gave him their instructions; he then went by the way of Paris to Marseilles, where he embarked. After having visited Cyprus, he landed at Alexandria, and remained some months in Cairo, to learn the language of the Maugrabins or Southern Arabians. When the landing of the French in Egypt became known, he, like all the other Europeans, was detained in the castle, in order to save them from the rage of the people. General Bonaparte, being informed of Hornemann's plans, gave him passports, and showed a disposition to promote his objects in every way possible. Sept. 5, 1799, Hornemann left Cairo with the caravan of Fezzan; on the 8th, he entered the Lybian desert, reached Sionah on the 16th, an oasis already visited by Brown, and arrived, after a tedious journey of seventy-four days, at Mourzouk, the capital of Fezzan. Here he staid some time, and made an excursion to Tripoli, which he left again, Jan. 29, 1800. April 12, he wrote that he was on the point of setting out with the great caravan of Bornou. From that time, nothing certain was known of him till 1818, when Von Zach, in his *Correspondence Astronomique*, communicated a letter from the English captain Smith, according to which Hornemann died on his return from Tripoli to Fezzan, of a fever, caused by drinking cold water, after being exposed to great fatigue, and lies buried at Aucalus. His companion, the bey of Fezzan assured the captain, that he had sent Hornemann's papers to the British consul at Tripoli. Hornemann himself had sent his journal from Tripoli to England. It was written in German, and, in 1802, the African society published a translation of it. In the same year, the original was published by Charles Konig. It contains much valuable information, with useful notes, by Rennel, Young, and Marsden.

HORNPIPE; a dance, of which the name is probably derived from the instrument played during its performance. That it was not unusual to give to certain airs the names of the instruments on which they were commonly played, appears from the word *Geig*, which, with little variation, is made to signify both a *fiddle* and the air called a *jig*. The instrument called the *horn-pipe* is common in Wales. Its name in Welsh is the *pib-corn* (horn-pipe). It consists of a wooden pipe, with holes at stated distances, and a horn at each end.

HORNSTONE. See *Quartz*.

HOROLOGY. See *Watch* and *Clock Making*.

HOROSCOPE (from ὥρα, time, and σκοπέω, to observe); a careful observation of the moment of birth, and of the position of the celestial bodies at the time, for the purpose of predicting the fortune of the infant. It is also used for a scheme or figure of the position of the heavens at any time. The heavens were divided by astrologers, for this purpose, into twelve parts, called *houses*, to each of which was assigned its particular virtue or influence. The ascendant was that part of the heavens which was rising in the east at the moment; this is the first house, or house of life, and contained the five degrees immediately above the horison, and the twenty-five beneath it; the second was the house of riches, &c.; the seventh, or angle of the west, the house of marriage; the eighth, the house of death. See *Astrologer of the Nineteenth Century* (1825), and *Manual of Astrology*, 1828.

HORROX, JEREMIAH; an English astronomer of the seventeenth century, born about 1619, and educated at Cambridge. He accurately observed the transit of Venus over the sun's disk, Nov. 24, 1639. He died Jan. 3, 1641, only a few days after he had finished his treatise entitled *Venus in Sole visa*. Other productions of his pen, left in an imperfect state, were collected and published by doctor Wallis, in 1673, under the title of *Opera posthuma*. Horrox seems to have been the first who ever predicted or observed the passage of Venus over the sun's disk, from which he deduced many useful observations, though not aware of the full advantages to be derived from an examination of that important phenomena. His theory of lunar motions afforded assistance to Newton, who always spoke of Horrox as a mathematical genius of the highest order.

HORS D'ŒUVRE (*French*); meaning a thing of secondary importance, often used for a secondary dish at entertainments. It is also used for an unnecessary deviation from the chief subject in work of art.

HORSA. See *Hengist*.

HORSE (*equus caballus*, Lin.) a beautiful and useful quadruped, classed by naturalists as forming the order of solipedes, which are thus described: a single toe on each foot, included in a broad hoof; six cutting teeth or *nippers*, in each jaw; two very small tusks; grinders with a flat crown, presenting when worn different figures, formed by the enamelled plates of the interior; stomach small and simple, intestines very large; a valve at the cardiac orifice, the cæcum or blind gut of considerable dimensions; neither gall bladder nor clavicles. The horse family contains five varieties. 1. The horse. 2. The jichta or wild mule. 3. The ass. 4. The zebra. 5. The quagga. The horse is found wild in many countries, but Arabia produces the most beautiful breed, and also the most generous, swift, courageous, and persevering. They occur, though not in great numbers, even in the deserts of that country, and the natives make use of every stratagem to take them. They select the most promising for breeding, and cherish and cultivate the race with a degree of kindness, which can scarcely be surpassed. It is believed that Arabia is the original country of the horse, since there, instead of crossing the breed, the utmost care is taken to keep it entire. The Arabian breed of horses has been diffused in Barbary, Egypt, and Persia, and the horses of Nubia are described as being of superior beauty even to those of Arabia, but from an erroneous manner of feeding them are apt to become too fat. Large herds of wild horses are sometimes seen in the southern parts of Siberia, in the deserts of the Mongol territory, and among the Kalkas, to the northwest of China. At the cape of Good Hope there are numbers of wild horses, but they are small, vicious, and untameable. They are found also in other parts of Africa, but the savages there seem ignorant of their value, and also of the methods of taming them. In the Pampas or plains of South America, on the banks of the river La Plata, there are immense troops of wild horses, which are descended from those of Andalusia, originally carried thither by the Spanish conquerors. These herds occupy a tract of country chiefly between the river Negro and the country of the Patagonians, and are sometimes in herds of ten thousand. Among these herds, each stallion appropriates as many mares as he can, which he keeps collected and protects, so that every large troop consists of many distinct families. Moldavia also abounds with a race of wild horses of which the habits are precisely similar to those of South America.

Of the various modes of judging of a horse's age, the best is from a careful inspection of the teeth. Five days after birth, the four teeth in front, called *nippers*, begin to shoot; these are cast off at the age of two years and a half, but are soon renewed; and

the following year two above and two below, one mely on each side of the nippers, are also thrown '; at four years and a half other four; next those it placed fall out; and are succeeded by other four, nich grow much more slowly. From these last ir corner teeth it is that the animal's age is distinished, for they are somewhat hollowed in the ddle, and have a black mark in the cavities. At e years old, these teeth scarcely rise above the ms; at six, their hollow pits begin to fill up, and rn to a brown spot, like the eye of a garden bean; d before eight years the mark generally disp-ars. A horse's age is also indicated by the tusks, r those in the under jaw generally shoot at three ars and a half; and the two in the upper at four; l six they continue sharp at the points; but at ten ey appear long and blunted. But artful dealers d jockeys have a method of burning and staining rses' teeth, which may deceive the unwary, and is method is called *Bishoping*, in their cant lan-uage. At the age of two years, the horse is in a ndition to propagate. The mare is generally in eat or in season, from the latter end of March till ie beginning of June, but her most violent ardours nly continue fifteen or twenty days. She carries er young eleven months and some days; continues breed till the age of sixteen or eighteen years, and ves on an average between twenty and thirty years. he foal is capable of taking solid food at four nonths, and may be weaned at six and seven. In ts fourth year, the fore feet may be shod, and the ind feet six months after. The horse is, strictly peaking, an herbivorous animal, and is more crupulous in the choice of his food than most other lomestic quadrupeds; in the meadow rejecting everal plants which the ox devours with pleasure. n Sweden it has been calculated that he eats 262 inds of herbs, and rejects 212. Marshy pastures re not friendly to his constitution; and he is apt to ndulge too greedily in succulent herbage, particu-arly in clover and lucerne. He is fond of salt, read, and malt liquors; and what is extraordinary, he horses of South America sometimes even eat nimal food—that of bullocks, for instance. He leeps only four or six hours out of the twenty-four, nd frequently in a standing posture. He is apt to e easily startled at loud or unpleasant sounds, and t the sight of unexpected objects, especially at the lead body of one of his own species. If properly reated, he may live to the age of forty or fifty years. Wonderful instances are related of his extraordinary agacity and affection, of his social and gregarious lisposition, his love of home and his master, and his wonderful docility. See *Horsemanship*.

In England, the breeding of horses has reached a degree of perfection which is unknown elsewhere; and the fleetness of English horses is scarcely credible. Thus the celebrated Childers ran four miles in six minutes and forty-eight seconds, carrying at the same time a weight of 9 stone, 2 pounds. In 1745, the postmaster of Stilton rode on different horses along the London road, 215 miles, in eleven hours and a half; being more than 18 miles an hour. The utmost speed of an English trotter is considered to be a mile in about two minutes fifty-seven seconds; a rate which was performed some years ago by a roadster called Archer, belonging to Tom Marsden, the dealer.

The London drag horses are rather remarkable for mass and weight than for hardiness or vivacity. The *Suffolk punches*, as they are called, excel in drawing dead pulls. Five of these horses once drew thirty sacks of barley over the deep sandy road between Walton and Ipswich; and one belonging to Mr Constable of East Bergholt, drew in a cart ten sacks of flour, each weighing twenty stone and a half, for five or six miles on a heavy road. The Clydesdale horses are celebrated as the best draught horses in Britain. They are larger than the Suffolk punch, and the neck is somewhat longer; they possess all the essential points for heavy draught, and are besides extremely docile. The principal markets at which they are sold are those of Lanark, Carnwath, Rutherglen, and Glasgow. Their quick step adds greatly to their value. The mountain poneys of Wales and Scotland are small, but extremely hardy, durable, and sure-footed. The *Shelties* of Shetland and Orkney, though only from nine to eleven hands in height, brave the rigours of these northern climes, and are excellently calculated for the rugged fastnesses of their native land.

Without the horse, it may be asserted, that man could not have reached his present pitch of civilisation, nor have been able to overcome the numerous obstacles to comfort and happiness. The want of these animals was one of the principal causes which rendered the aboriginal inhabitants of America so inferior to their invaders; and the decided superiority of the whites over the Indians, was owing almost as much to the horse as to the knowledge of fire-arms. In fact, next to the want of iron, the want of horses is, perhaps, one of the greatest physical obstacles to the advancement of the arts of civilised life. During the age of chivalry, no knight or gentleman would ride upon a mare, as it was thought dishonourable and degrading. No sufficient reason has been assigned for this singular custom. During that time, the breeds of horses most in repute, were those of Normandy and Flanders, from their great size and strength. When gunpowder was invented, however, from the heavy coats of mail being laid aside, this description of horse was consigned to the wagoner, and sedulous attention paid to animals of a lighter and more active character. Various tables have at different times been drawn up, as to the proper proportions of a horse, none of which have been found correct. The celebrated English horse Eclipse was neither handsome nor well proportioned, according to these rules, yet for speed and strength, the mechanism of his frame was almost perfect. An old writer, Camerarius, says, a perfect horse should have the breast broad, the hips round, and the mane long, the countenance fierce like a lion, a nose like a sheep, the head, legs, and skin of a deer, the throat and neck of a wolf, and the ear and tail of a fox.

The wild mule (*E. hemionos*) in its size and general appearance, is not unlike the common mule, the progeny of the horse and ass. Its head is large, forehead flat, becoming narrow towards the extremity of the nose; ears longer than those of the horse, and lined with a thick coat of whitish hair. The limbs are long and finely shaped. There is an oval callus within the fore legs, but none on the hinder. The hoofs are small, smooth, and black, the tail naked for one half of its length, and covered on the other by long hairs. The hair is of a brown ash colour, very long in winter, but short in summer. There is a blackish testaceous line extending from the mane along the ridge of the back to the tail. The height of this animal is about three feet nine inches; length six feet. It was well known to the ancient naturalists. Aristotle, who terms it *hemionos*, or half ass, says it was found in Syria; and Pliny, on the authority of Theophrastus, says it also occurred in Cappadocia. It is no longer an inhabitant of these countries, only being found in Tartary, where they chiefly frequent the country around the lake Taricnoor. They live in herds, consisting of mares and colts, with an old male: these herds seldom contain more than twenty. The foal attains its growth in its third year, at which

time the males expel them from the troop. Their neigh is louder than that of the horse. They are very timid and cautious, stationing sentinels whilst they are feeding. They are amazingly swift, even outstripping the antelope. The Tartars often take them alive when young, but have never been able to domesticate them. They are usually killed or taken in rainy or stormy weather, at which time they are less shy. The Mongol and other Tartar tribes prefer their flesh to any other food. See *Ass*.

Horse Power. A horse's power of draught or carriage, of course, diminishes as his speed increases. The proportion of diminution, according to professor Leslie, is as follows: If we represent his force when moving at the rate of 2 miles an hour by the number 100, his force at 3 miles per hour will be 81; at 4 miles, 64; at 5 miles, 49; at 6 miles, 36; which results agree pretty nearly with the observations of Mr Wood (*Treatise on Rail-Roads*, page 239). At his height of speed, of course, he can carry only his own weight. A horse draws to the greatest advantage when the line of draught inclines a little upwards. Desaguliers and Smeaton consider the force of one horse equal to that of five men, but writers differ on this subject. The measure of a horse's power, as the standard of the power of machinery, given by Mr Watt, is, that he can raise a weight of 33,000 pounds to the height of one foot in a minute. Care should be taken, when a horse draws in a mill, or an engine of any kind in which he moves in a circle, that the circle be large; for, since he pulls obliquely, and advances sideways as well as forwards, his fatigue is greater as the circle is smaller. In some ferry-boats and machinery, horses are placed on a revolving platform, which passes backward by the pressure of their feet as they pull forward against a fixed resistance, so that they propel the machinery without moving from their place. A horse may act within still narrower limits, if he stands on the circumference of a large vertical wheel, or on a bridge supported by endless chains, which pass round two drums, and are otherwise supported by friction wheels. Various other modes of applying the force of animals are practised, but most of them are attended with great loss of power, either from friction, or from the unfavourable position of the animal.

HORSE-CHESTNUT (*æsculus hippocastanum*); an ornamental tree, a native of the northern parts of Hindoostan, and frequently cultivated in Europe and America. It is one of the few plants belonging to the class *heptandria* of Linnæus, or having seven stamens. The leaves are opposite, composed of five or seven leaflets radiating from a common foot-stalk. The flowers are white, spotted with red and yellow, and disposed in superb racemes. The fruit is a prickly capsule, containing one or two large seeds, externally somewhat resembling chestnuts, but possessing a bitter and disagreeable flavour. It was unknown to the ancients.

The horse-chestnut is one of our most admired ornamental trees. Its large and bright green foliage, its full and rich form, and the profusion of spikes of flowers, of the most delicate and brilliant colours, with which it is covered, render it one of the most showy trees to be found. In Europe, the fruit is used for feeding various kinds of cattle, who are said to be fond of it. For this purpose, it is first soaked in lime-water or an alkaline solution, which deprives it of its bitterness; it is then washed, and boiled to a paste. In Turkey, it is ground and mixed with provender for horses. It has been made into starch, and forms a paste or size, which is preferred, by bookbinders, shoemakers, &c., to that made from flour. In France and Switzerland, it is used for cleaning woollens, and in the washing and bleaching of linen, and it is supposed that it might be made to answer the purpose of soap in washing and fulling. The powder, snuffed up, excites sneezing, and has been used with benefit in affections of the eyes. This tree was first brought to Europe from the northern parts of Asia, about the middle of the sixteenth century. It is very easily raised, and grows with greater rapidity than any tree we know, the whole length of its spring shoots being complete in about three weeks from the first opening of the buds.

HORSE-GUARDS; a building opposite Whitehall, London, so called because the horse-guards usually do duty here. In this building is the office of the commander-in-chief of the British army, and we find therefore many important papers dated from it.

HORSEMANSHIP. The earliest writer on the subject, whose work has come down to us, is Xenophon: in his treatise Περὶ ἱππικῆς, he gives rules for judging of horses, dressing them, and riding. The Romans have left us no work on the manège, and though the mounted hordes who overthrew the Roman empire, and the knights of the later period of chivalry, must have been skilled in the care and guidance of the horse, the earliest modern treatise on horsemanship was written in the sixteenth century, by Grisone, an Italian. "There are," says a French writer, "three principal European races, the Latin, the Teutonic, and the Sclavonic, each of which is no less characterised by its manner of riding on horseback than by its language. The Poles and Hungarians, however, who belong to the Sclavonic race, have adopted the Teutonic manner; but the three Latin nations—the French, Italians, and Spaniards—are all of the Italian school." The English, according to this very erudite division, belong to the Teutonic school; and, among the Noble and Royal Authors of Walpole, the duke of Newcastle appears as the author of two treatises, which later writers have done little more than to copy or abridge—*Méthode nouvelle de dresser les Chevaux* (Antwerp, 1658; in English, 1743, 2 vols., folio), and New Method to Dress Horses (London, 1667). The principal matters in which the pupil is to be instructed at the manège, are, to sit on horseback with firmness, ease, and gracefulness, and to guide his horse accurately in going straight forward, to the right or left, or sideways, at a walk, trot, or gallop, or halt at once, and to rein back without difficulty. For an account of the manner of training a horse, see *Manège*.

The horse has three natural paces, namely, walking, trotting, and galloping. In the first, he moves off with one of his fore feet, which is immediately followed by the hind leg of the opposite side; and so with the other fore and hind leg. His trot differs from his walk, not only in its greater velocity, but also in this, that he always moves the two opposite legs together. The gallop is a series of leaps, and it is true and regular when the horse lifts his two feet on one side at the same time, and follows with those of the other side; when the right feet move off first, the horse is said to gallop to the right; when the left move off first, he is said to gallop to the left. A horse may not only gallop false, but trot and walk false. In his galloping for instance, a horse is said to go false, when, in proceeding to the right, he leads off with the left leg; or, when in going towards the left, he moves off with the right; or he may be *disunited*, that is, if he leads with the opposite leg behind to that which he leads with before. A horse may thus be disunited to the right or to the left. He may likewise be at the same time both false and disunited. Thus he is both false and disunited to the left, when in going to the left he leads with the

ight leg before and the left behind, and also when
going to the right he leads with the left leg
efore and the right behind: although in both cases
e hinder leg is with propriety put forward.

The three natural paces may be converted into
rtificial paces by art and skill, by shortening or
uickening the motion of the horse, and thus are
rmed the actions of the terre a terre, and demi air
r demi volte, which is a species of short gallop, the
orse making a leap forwards, the two forelegs being
rst, and the two hind legs following; and of what
re called the high airs, which are curvets, groupades,
allotades, and capriols, in which the horse makes a
ap upwards. There is also a pace called an amble,
hich seems to be natural to some few horses, and
ay be taught to all. In this the horse leads off at
nce with both feet on one side, and changes imme-
iately with the other side. It is certainly a very
asy motion for the rider, but very fatiguing for the
orse, and very insecure, as ambling horses are very
pt to stumble and fall.

The first lesson to give a horse is to teach him to
o forward freely, first at a walk, and afterwards at
trot. He must never be permitted to go false, nor
acquire a shuffling or irregular pace. The trot is
e pace which enables all quadrupeds to balance and
pport themselves with firmness and ease; and it is
erefore the most proper for communicating a free
etermined motion to the horse. By trotting also
e render the horse free and supple in his shoulders,
nd make him acquire a steady and united action;
nd for this purpose it is not merely necessary that
e lifts and throws out his legs well, but he must be
ught to do so in a vigorous manner, with activity,
pirit, and elegance. A strong well formed horse is
ways light in hand. But if a horse is ill formed or
ross made, and goes disunited without restraining
imself, he is *heavy in hand*. In this case he must
e thrown on his haunches, and made to shorten his
eps, so that he may collect his strength, and go
ore united and firm. A horse must not be suffered
sink his neck and poke out his nose; to prevent
is, the reins are to be held tight, so that the bit may
ib against the *bars* or roof of his mouth if he alters
is position. The proper position for a horse's head
when the profile of the face forms a perpendicular
ne from the forehead to the nose, and this is called
fine carriage, or carrying the head well. To work
p a horse's head and neck into this situation requires
steady, soft, and pliable hand in the rider, with so
uch sensibility as to enable him to hit the precise
oment when it is necessary to give or take.

In mounting a horse, the horseman should approach
e animal gently near the left shoulder, and take up
e reins. The snaffle rein should be taken up first,
e left rein passing along the palm of the left hand,
rough between the forefinger and thumb, and the
t reins should then be drawn over the ring finger.
he whole reins should then be laid over each other,
d grasped firmly with the whole hand, and with the
umb pressed down upon them, lest they slip through
e fingers. Then taking up a handful of the mane
the bridle hand he must put his left foot softly into
e stirrup and raising himself up, resting on it a
oment, catch hold of the cantle of the saddle with
s right hand, and throw his right leg clearly over it,
eadying himself by shifting his right hand in the
me moment to the pummel.

The reins must not be taken up too short, lest the
rse be made to rear, run and fall back, or toss up
s head, but they should be held of equal length,
d neither tight nor slack. Soldiers should be
ught to mount and dismount equally well on both
les, and the same precautions must be used in dis-
ounting as in mounting. The rider should sit
upright in his saddle, with his back rather back-
wards, and his head erect, but without stiffness.
The breast should be somewhat pushed out, and the
legs and thighs turned in easily, so that the forepart
of the inside of the knees may press and grasp the
saddle, and the legs hang down easy and naturally,
the feet being parallel to the horse's sides, neither
turned in nor out, only that the toes should be kept
a little higher than the heels. By this position the
natural weight of the thighs gives a sufficient degree
of pressure, and the legs are held ready to act when
requisite. These should be kept near enough to the
horse's sides, but yet neither to touch nor tickle them.
The left elbow should lean gently against the body,
a little forwards, and the hand generally should be
kept of equal height with the elbow. But when
riding a horse with a low heavy forehead, the rider's
hand must be held higher, and the contrary with a
horse that pokes out his nose. The right arm must be
placed in symmetry with the left, and the right hand
may be moved backwards and forwards as occasion
may require. The hand holding the reins may be
held clear of the body about two inches and a half
forward, and immediately over the pummel of the
saddle. The nails should be turned opposite the
coat buttons, and the wrist a little rounded. The
joint of the wrist must be kept easy and pliable, giv-
ing and taking as may be occasionally required. A
firm and well balanced position of the body is of the
utmost consequence, as it affects the horse in every
motion; and its want is of the greatest impediment,
and will injure him in all his actions. In riding, the
hands and legs ought to act in correspondence with
each other in every thing, the latter being always
held subservient to the former. In riding in a circle
the outward leg is the only one to be used, and that
merely for an instant of time, in order to make the
horse go *true* if he should be false, and as soon as he
does so, it is to be immediately withdrawn. But the
less the legs are used the better, as delicate riders on
well dressed horses seldom require them.

A horse should be taught to leap by degrees, be-
ginning with low and small leaps, and augmenting
them gradually as the horse improves.

The rider must keep his body back, raise his hand
a little in order to help up the foreparts of the horse,
and be very attentive to his balance, without raising
himself in the saddle or moving his arms. The leap-
ing bar should be covered over with furze, which by
pricking the horse's legs will make him lift them high,
and prevent his contracting a sluggish and danger-
ous habit of touching. The bar should be made to
turn round on an axis, and planks placed on the
ground before it, to keep the horse from approaching
too near. Horses should be accustomed to come up
quietly to every thing they are to leap over, to stand
coolly near it for a moment, and then to raise them-
selves gently up and go clear over it, without sloth
or hurry. When they leap well standing, they
should then be used to walk gently up to the leap
and go over it without first halting; afterwards to
take it in a gentle trot, and lastly, by degrees, go
over it at full gallop. In swimming a horse, very
little strength is required to guide him, and he
should be but little constrained. In crossing rivers
his head should be kept against the current, but
in going down the stream the straighter he is kept
the better. As a horse is with difficulty turned
in the water, it should be done very carefully and
gently.

HORSERADISH (*cochlearia armoracia*); a cruci-
ferous plant inhabiting the temperate parts of Europe,
in moist situations. The stem is herbaceous, grow-
ing to the height of two or three feet, bearing alter-
nate leaves and small white flowers. The radical

leaves are very large, oval-oblong, and somewhat resemble those of the common dock. The root is cylindrical, penetrating very deeply into the ground, and, when fresh, forms a well known condiment, possessing a pungent taste and odour. It is also employed medicinally, as an antiscorbutic and stimulant. This plant is naturalised in some parts of America, and is, besides, very commonly cultivated in gardens.

HORSE-TAIL. See *Equisetum*.

HORSE-TAIL, among the Ottomans and Tartars, is used as a standard. It is also a sign of distinction for the commanders, the number of horse-tails carried before them, and planted before their tents, being in proportion to their rank. Thus the sultan has seven horse-tails in war, the grand visier five, and the pachas three, two, or one. This standard is said to have been introduced among the tribes on occasion of the loss of all their ensigns in battle; the commander, having fastened a horse's tail to a lance, rallied his troops and conquered. Its origin may also be naturally explained from the common use of the horse-tail as a military ornament among all nations acquainted with horses. The Turkish horse-tail consists of a pole, to which is attached one or several tails, and other ornaments of horse hair. It is surmounted by a crescent.

HORSLEY, Samuel; a learned dignitary of the church of England, was born in London, October, 1733. He was educated at Cambridge, where he took the degree of LL. B. in 1758. The same year, he became curate to his father. In 1767, he was chosen a fellow of the royal society; and the same year he published an elaborate treatise, entitled the Power of God deduced from the computable instantaneous Production of it in the Solar System (8vo). In 1770 was printed, at the Clarendon press, his earliest mathematical publication — *Apollonii Pergæi Inclinationum Libri ii.* In November, 1773, he was elected secretary to the royal society. In 1774, he published Remarks on the Observations made in the last Voyage towards the North Pole, for discovering the Acceleration of the Pendulum, in Latitude 79° 50′, in a Letter to the Honourable C. J. Phipps (4to). In 1776, he published proposals for a new edition of the works of Sir Isaac Newton, which was gradually completed, in five vols., 4to. He engaged warmly in the contest carried on in 1783 and 1784 with Sir Joseph Banks, respecting his conduct as president of the royal society. About the same period, he commenced a literary controversy with the great champion of Unitarianism, doctor Priestley. In 1788, he was made bishop of St David's. He showed himself the strenuous advocate for the existing state of things in religion and politics; and the merit of his conduct will accordingly be differently appreciated. He certainly advocated with ability the cause he had adopted. He was promoted to the see of Rochester in 1793, and made dean of Westminster; and, in 1802, he was translated to St Asaph. He died October 4, 1806. Bishop Horsley may at least claim the praise of consistency of conduct as an enemy of innovation; and he was probably honest and sincere, if not wholly disinterested, in his denunciations against religious and political heresy and heretics. Besides the works noticed, he was the author of Critical Disquisitions on the Eighteenth Chapter of Isaiah (4to); Hosea, a new Translation, with Notes (4to; a Translation of the Psalms (2 vols); Biblical Criticisms (4 vols., 8vo); sermons; charges; elementary treatises on the mathematics; On the Prosodies of the Greek and Latin Languages; and papers in the Philosophical Transactions.

HORTENSIUS, Quintus, the celebrated orator, and the rival of Cicero, held many military and civil offices, was consul 70 B. C., and was Cicero's colleague as augur. The faction of Clodius, which he opposed in common with Cicero, ill-treated him to such a degree, that he narrowly escaped with his life. His death was occasioned by an immoderate effort in the delivery of a speech. He was rich, and loved luxury and splendour. His speeches are all lost. He often opposed Cicero (for instance, in the defender of Verres), yet they were excellent friends. The ancients commend the eloquence of Hortensius as flowery, full of ornament, and approaching the Asiatic style. He was elegant and acute in the conception and distribution of his matter, and succeeded by sudden effect. His delivery was graceful, and his voice good. See *Cicero*.

HORTICULTURE (from *hortus*, garden, and *colere*, to till) includes, in its most extensive signification, the cultivation of esculent vegetables, fruits, and ornamental plants, and the formation and management of rural scenery for the purposes of utility and embellishment.

The earliest effort of man to emerge from a state of barbarism was directed to the tillage of the earth: the first seed which he planted was the first act of civilisation, and gardening was the first step in the career of refinement; but still it was an art in which he last reaches perfection. When the savage exchanges the wild and wandering life of a warrior and hunter, for the confined and peaceful pursuits of a planter, the harvests, herds, and flocks take the place of the simple garden. The mechanic arts are next developed; then commerce commences, and manufactures soon succeed. As wealth increases, ambition manifests itself in the splendour of apparel, of mansions, equipages, and entertainments. Science, literature, and the fine arts are unfolded, and a high degree of civilisation is attained. It is not until all this has taken place, that horticulture is cultivated as one of the ornamental arts.

Egypt, the cradle of civilisation, so far perfected her tillage, that the banks of the Nile were adorned by a succession of luxuriant plantations, from the cataract of Syene to the shores of the Delta; but it was when Thebes, with its hundred brazen gates, and the cities of Memphis and Heliopolis, were rising in magnificence, and her stupendous pyramids, obelisks, and temples, became the wonders of the world. The hills and plains of Palestine were celebrated for beautiful gardens; but it was not until the walls and temple of Jerusalem announced the power and intelligence of the Israelites, and the prophets had rebuked their luxury and extravagance. The queen of the East "had heard of the fame of Solomon;" his fleets had brought him the gold of Ophir, and the treasures of Asia and Africa; the kings of Tyre and Arabia were his tributaries, and princes his merchants, when he "made orchards," "delighted to dwell in gardens," and planted the "vineyard of Baalhaman." The Assyrians had peopled the borders of the Tigris and Euphrates, from the Persian gulf to the mountainous regions of Ararat, and their monarchs had founded Nineveh and Babylon, before we hear of the gardens of Semiramis. The Persian empire had extended from the Indus to the Archipelago, when the paradise of Sardis excited the astonishment of a Spartan general, and Cyrus mustered the Grecian auxiliaries in the spacious garden of Celænæ. The Greeks had repulsed the invasions of Darius and Xerxes, and Athens had reached the height of her glory, when Cimon established the Academus, and presented it to his fellow citizens as a public garden. Numerous others were soon planted, and decorated with temples, porticoes, altars, statues, and

triumphal monuments; but this was during the polished age of Pericles, when Socrates and Plato taught philosophy in the sacred groves; when the theatre was thronged to listen to the poetry of Euripides and Aristophanes; when the genius of Phidias was displayed in rearing the Parthenon and sculpturing the statues of the gods; when eloquence and painting had reached perfection, and history was illustrated by Herodotus, Thucydides, and Xenophon. Rome had subjugated the world, and emulated Athens in literature, science, and the arts, when the superb villas of Sallust, Crassus, Pompey, Cæsar, Mæcenas, and Agrippina were erected, and the palaces of the emperors were environed by magnificent gardens.

The history of modern nations presents similar results. Horticulture long lingered in the rear of other pursuits. Most of the common fruits, flowers, and oleraceous vegetables which had been collected by the Greeks and Romans, from Egypt, Asia, and other distant climes, were successively extended over Western Europe; but so gradual was their progress, after the dark ages, that till the reign of Henry VIII., scarcely any kitchen vegetables were cultivated in England, and the small quantity consumed was imported from Holland. Fuller observes, that "gardening was first brought into England, for profit, about the commencement of the seventeenth century. Peaches, nectarines, apricots, plums, pears, cherries, strawberries, melons, and grapes, were luxuries but little enjoyed before the time of Charles II., who introduced French gardening at Hampton court, Carlton, and Malborough, and built the first hot and ice houses. At this period, Evelyn translated the Complete Gardener," and a treatise on orange trees, by Quintinyne; and, having devoted the remainder of his life to the cultivation of his rural seat at Sayes court, near Deptford, and the publication of his *Sylva*, *Terra*, *Pomona* and *Acetaria*, he "first taught gardening to speak proper English."

In the Netherlands, France, Germany, and Italy, a formal and very imperfect system of gardening was practised, with considerable success; but was generally in a languishing condition, throughout the world, until the commencement of the eighteenth century, when it attracted the attention of some of the first characters of Great Britain; but the establishment of the present improved style of horticulture is of very recent date. "Bacon was the prophet, Milton the herald, and Addison, Pope, and Kent the champions of true taste." The principles which were developed in their writings, and those of Shenstone, the Masons and Wheatly, were successfully applied by Bridgeman, Wright, Brown, and Eames; the system soon became popular, and gradually extended over Europe, and ultimately reached America. But the labours of the London horticultural society have mainly contributed to the perfection and present high estimation of gardening. That noble institution has given an impetus to cultivation, which is felt in the remotest countries. Its example has been followed in the most flourishing kingdoms of Europe, and many similar institutions have been founded in the United States of America. The effect of these is to diffuse through every country the knowledge and products of all.

The history, literature, and science of gardening, open a wide field for study and inquiry. The pleasure which gardens afforded men, even in the earliest times, appears from the scriptural account of the garden of Eden. The garden of Gethsemane, and that of the good and just Arimathean, are memorable in the sacred history of the Messiah. The Elysian fields were the heaven of classic mythology, and the devout Mussulman hopes to renew his existence in a celestial paradise. The bards, scholars, and philosophers of the classic ages, have transmitted descriptions of the gardens of the ancients, from those in which Homer places the palace of Alcinous and the cottage of Laertes, to the splendid villas of Pliny and Lucullus. Among the ancient Greek writers, Hesiod, Theophrastus, Xenophon, and Ælian treated of gardens to a certain extent; and works of those who wrote after the seat of government was removed to Constantinople, were collected under the title of *Geoponica*, and have been translated by Owen. Among the Latins, Varro was the first author, to whom succeeded Cato, Pliny the Elder, Columella and Palladius. Passages are to be found, relative to the subject, in Martial, Virgil, and Horace; but Pliny's Natural History, and Columella's book on gardens, contain the most correct information on Roman horticulture.

Literature and the arts having revived in Italy, that country was the first to produce books on agriculture and gardening, and that of Crescensis became celebrated. The field and garden cultures of Italy are so nearly allied, and horticulture and agriculture have been so blended by the writers, that it is difficult to ascertain under which department to include their works. The best for general information on the tillage of that delightful region, is the *Annali dell' Agricoltura*. The Germans, as in all the branches of letters, science, and arts, have an immense number of books in the department of gardening, especially on the subject of planting and forest trees. Those which furnish the best idea of the state of culture in that country, are Dietrich's *Worterbuch*, with the supplement of 1820, and Sickler's *Deutsche Handwirtschaft*. The Dutch excel more in the practice than the literature of gardening. They have no work of very recent date; that of Commelin, which was published about the middle of the seventeenth century, is among the earliest; and those of La Court and Van Osten are said to be among the best that have appeared. The Journal of a Horticultural Tour in Holland and Flanders, by a deputation of the Caledonian horticultural society, gives the most satisfactory account of gardening in that part of the continent, in 1817. The Transactions of the Stockholm and Upsal academies furnish the chief information which is to be obtained, in relation to the rural economy of Sweden. The first author was Rudbeck, who was a contemporary of Commelin. Russia and Poland have produced but very few original books on horticulture. The Agricultural Transactions occasionally published by a society in Warsaw, with those of the Economical Society of St Petersburg, may be considered as affording the most accurate intelligence as to the culture of those countries. In the latter city is an extensive imperial botanical garden, which, being under the direction of able professors, emulates those of the more favoured portions of Southern Europe. The only recorded source for obtaining any knowledge of Spanish tillage, are the Transactions of the Royal Agricultural Society of Madrid. The horticultural literature of France is of an early date, and the authors are not only numerous, but many of them in the highest repute. Etienne and Belon were the pioneers, while Du Hamel, Girardin, D'Argenville, Rosier, Tessier, Calvel, Noisette, Du Petit Thours, Jean and Gabriel Thouin, Bosc and Vicomte Hericart de Thury, may be considered as among the most able of their followers, in the various branches of rural economy. For a general knowledge of French culture, the *Nouveau Cours d'Agriculture*, in thirteen volumes, published in 1810, should be consulted; but the most valuable publications on the existing mode of gardening, are the monthly *Annales de la Société d'Horticulture*, the *Annales de l'Institut Royal Horticole de Froment*, and the *Bon Jardinier*, an annual

publication, compiled by professor Poiteau and Vilmorin.

The first English treatise on rural economy was Fitsherbert's Book of Husbandry, which was published in 1634. The works of Tusser, Googe, and Platt, soon after appeared, and, early in the 18th century, the celebrated treatise of Jethro Tull excited much attention; and several new works of considerable merit were announced before 1764, when the valuable publications of Arthur Young, Marshal, and numerous other authors, spread a knowledge of cultivation, and cherished a taste for rural improvements, throughout Great Britain. The literature of horticulture rapidly advanced; but as many of the most eminent writers have been named, in treating of the science and art of gardening, it is unnecessary to mention them in this place. The citizens of the United States of America have been chiefly dependent on Britain for books relating to agriculture and gardening. Still several have appeared by native writers, which are highly creditable to the authors and the country; especially those which relate to the botanical department. Mulenburg, Bigelow, Eliot, Torry, Colden, Bartram, Barton, Hosack, Mitchel, Darlington, Ives, Dewey, and Hitchcock, are entitled to great praise for their successful attempts to illustrate the American flora. One of the earliest writers on husbandry was Belgrove, who published a treatise on husbandry, in Boston, in 1755; and in 1790, Deane's New England Farmer appeared; but M'Mahon, Cox, Thacher, Adlam, Prince, Bundly, Butler, Nicholson, and Fessenden, since the commencement of the present century, have produced works on the various cultures of the United States, which are generally circulated, and held in great estimation.

The scientific relations of horticulture are numerous, and require an extensive acquaintance with the various branches of natural history and physics. Botany, mineralogy, chemistry, hydraulics, architecture, and mechanics, must furnish their several contributions, which it is the province of the artist to apply. After the illustrious Linnæus published his System of Nature, botany became a popular science, and a variety of interesting elementary works awakened attention to the beauties of nature, and a passion for experimental and ornamental planting was induced, which has been productive of great results. Mineralogy enables us to obtain accurate knowledge of terrestrial substances, and the mode of distinguishing the divers kinds of earths which constitute a cultivable soil; and chemistry instructs us as to the nature and properties of these various earths, having for its objects, when applied to horticulture, all those changes in the arrangements of matter, which are connected with the growth and nourishment of plants, the comparative value of their produce as food, the constitution of soils, the manner in which lands are enriched by manure, or rendered fertile by the different processes of cultivation. Inquiries of such a nature cannot but be interesting and important, both to the theoretical horticulturist and the practical gardener. To the first they are necessary in applying most of the fundamental principles on which the theory of the art depends. To the second they are useful in affording simple and easy experiments for directing his labours, and for enabling him to pursue a certain and systematic plan of improvement. To hydraulics belong, not only the conducting and raising of water, with the construction of pumps and other engines for those purposes, but the laws which explain the nature of springs and fountains. By the principles of that science, artificial lakes, canals, and aqueducts are formed, irrigations projected, and water rendered subservient to the useful purposes of life, as well as to the embellishments of pleasure-grounds by *jets d'eau*, cascades, and streams. Architecture, as a branch of horticulture, is of the first importance. Without its aid, it would be impossible to give that propriety and elegance to the scenery, and to produce that pleasing effect, which is the chief object of landscape gardening. Mechanics, in all its branches, is required for the purposes of horticulture.

Great improvements have been effected in gardening within the last half century. During the age of Cicero, a formal kind of gardening prevailed, characterised by clipped hedges and long avenues of trees. Pliny the Younger has given an account of his villa at Laurentum, and from the description, it was rather distinguished for its numerous superb edifices, extensive prospects, and the systematical arrangement of the pleasure grounds, than for the improvements and decorations of the surrounding scenery, in accordance with those principles which are derived from a close observance of the pleasing effects of nature. The rural residences of the Romans appear to have been mere places of temporary retreat, and were planted with odoriferous flowers and shrubs, and ornamented rather by the civil architect than the horticultural artist. From the establishment of the papal government to the commencement of the thirteenth century, the monks were the only class of persons who attended to ornamental gardening. After that period, the style prevalent throughout Europe consisted in tall hedges, square parterres fantastically planted, straight walks, and rows of trees uniformly placed and pruned. In fact, but little improvement was made from the time of the emperors Vespasian and Titus until the reign of George III. of Britain. It is true, Hampton court had been laid out by cardinal Wolsey; Le Notre had planted Greenwich and St. James's park during the reign of Charles II.; and, in that of George II. queen Caroline had enlarged Kensington gardens, and formed the Serpentine river; but lord Bathurst was the first who deviated from straight lines, as applied to ornamental pieces of water, by following the natural courses of a valley. Still, what has been emphatically called the *Dutch system* universally prevailed, and the shearing of yew, box, and holly into formal figures of various kinds, and the shaving of river banks into regular slopes, went on until their absurdity became contemptible, and a better and more natural taste was induced. Verdant sculpture, regular precision in the distribution of compartments, and rectangular boundary walls, yielded to more chaste designs. Bridgeman succeeded to London and Wise, and became a distinguished artist; he rejected many of the absurd notions of his predecessors, and enlarged the bounds of horticulture. Other innovators departed from the rigid rules of symmetry; but it was reserved for Kent to realise the beautiful descriptions of the poets, and carry the ideas of Milton, Pope, Addison, and Mason more extensively into execution. According to lord Walpole, he was painter enough to taste the charms of landscape, sufficiently bold and opinionative to dare and to dictate, and born with a genius to strike out a great system from the twilight of imperfect essays. He leaped the fence, and saw that all nature was a garden. The great principles on which he worked were perspective, light, and shade. Groups of trees broke a too extensive lawn; evergreens and wood were opposed to the glare of the champaign, and, by selecting favourite objects, and veiling deformities, he realised the compositions of the great masters in painting. Where objects were wanting to animate his horizon, his taste as an architect could immediately produce them. His buildings, his temples, his seats, were more the work of his pencil, than of his science as a constructor.

le bade adieu to all the stiff modes of canals, circu-
ır basins, and cascades tumbling over marble steps.
)ealing in none but the true colours of nature, and
ising upon its most interesting features, a new
reation was gradually presented. The living land-
ape was chastened or polished, not transformed.
he elegant works of Repton, the unrivalled essays
f Price on the picturesque, and the valuable publi-
ations of Gilpin, Madock, Panty, Sang, and Loudon,
ith those of many other writers, on landscape and
rnamental gardening, have had an extensive influence
promoting correct ideas of natural scenery.

The improved style of horticulture, every where
pparent in Great Britian, attracted the attention of
ie other nations of Europe, and British gardening
ecame the designation for all that was beautiful in
at pleasing art—the synonyme of perfection in ru-
l culture. At the period when this new system of
ying out grounds was gaining converts, and began
be practically adopted, viscount Girardin, a French
ilitary officer of high rank, travelled through Eng-
nd, and, on his return, he not only improved his
at at Ermenonville in conformity to that style, but
ublished a work of great celebrity on the *Composition
s Paysages sur le Terrain, ou des Moyens d'embel-
r la Nature près des Habitations.* The French
yle of laying out gardens had been settled by Le
lotre, during the reign of Louis XIV., and continu-
d in repute for upwards of a century; for it appears
have been in vogue as late as 1770. The court
nd nation wished to be dazzled by novelty and singu-
rity, and his long, clipped alleys, triumphal arches,
ichly decorated parterres, his fountains and cas-
ades, with their grotesque and strange ornaments, his
roves full of architecture and gilt trellises, and his
rofusion of statues, enchanted every class of obser-
ers. His principal works were the gardens of Ver-
ailles, Meudon, St Cloud, Sceaux, Chantilly, and the
errace of St Germain. Gray, the poet, was struck
ith their splendour when filled with company, and
hen the water-works were in full action; but lord
Kaimes says, they would tempt one to believe, that
ature was below the notice of a great monarch. Le
lotre was succeeded by Dufresny, who, differing
onsiderably in taste from that great artist, determin-
d on inventing a more picturesque style; but his
forts were rarely carried into full execution. He,
owever, constructed, in a manner superior to his
redecessor, the gardens of abbé Pajot and those of
loulin and Chemin creux. After the peace of 1762,
ie English system began to pass into France, and
ortions of ancient gardens were destroyed, to make
ay for young plantations *à l'Anglaise.* Laugier
as the first author who espoused the English style,
nd the next in order was Prevot. It was at this
me that viscount Girardin commenced his improve-
ents at Ermenonville, and the change of the horti-
ultural taste in France, may be referred to the last
uarter of the eighteenth century.

The English style has gradually found its way into
ost civilised countries. Only twenty-five years
ave elapsed since the London horticultural society
as established, and there are now more than fifty
milar institutions in Great Britain, which still
aintains the first rank in the art; but France is
aking great efforts to rival her. A horticultural
ociety was established in Paris in 1826, and has al-
eady more than two thousand members, and the
umber is rapidly increasing. It has been patronis-
d by the court, and most of the nobles and men of
istinction in France have eagerly united with the
roprietors of estates and practical cultivators to col-
ct and disseminate intelligence throughout that
ourishing empire. In the various provinces where
orticultural societies have not been founded, those
of agriculture, or of the sciences and arts, have estab-
lished departments expressly devoted to that inter-
esting pursuit; and during the year 1827, a practical
and theoretical institution was founded at Fromont, by
the enlightened and munificent chevalier Soulange
Bodin, for educating gardeners, and introducing im-
provements in every department of horticulture.
The garden contains about 130 acres, and is divided
into compartments for every variety of culture.
Extensive green-houses, stoves and orangeries have
been erected, and all the other appendages furnish-
ed, which are requisite for rendering the establish-
ment effectual for instruction and experiment. The
nursery of the Luxembourg long supplied a great
part of Europe with fruit trees. The *Jardin des
plantes*, in Paris, includes compartments which may
be considered as schools for horticulture, planting,
agriculture, medical botany and general economy, and
is unquestionably the most scientific and best managed
establishment in Europe. The flower garden of
Malmaison, the botanical garden of Trianon, and
numerous nursery, herb, medicinal, experimental and
botanical gardens, in various parts of the kingdom,
are pre-eminent for the variety, number, and excel-
lence of their products.

Holland has been distinguished, since the period
of the crusades, for her flower gardens, culinary
vegetables, and plantations of fruit trees. The north
of Europe and the United States of America are still
dependent upon her florists for the most splendid
varieties of bulbous-rooted plants; and her celebrated
nurseries, which have long replenished those of
Europe, have been recently fortunate in the acquisi-
tion of Van Mons and Duquesne. Some of the finest
fruits of our gardens were produced by these indefa-
tigable experimentalists, and, with the excellent
varieties created by Knight, promise to replace those
which have either become extinct, or are so deterio-
rated in quality, as to discourage their cultivation.
From St Petersburg to the shores of the Mediterra-
nean, horticulture has made a rapid progress, and
each nation is emulous to perfect its culture, in
accordance with the most improved principles of
science, art, and taste. In America a like spirit has
been more recently developed. Horticultural socie-
ties have been instituted in New York, Philadelphia,
Boston, Albany, Geneva, and South Carolina, and a
zealous disposition evinced to compete with the
nations of Europe. It is now the duty of American
cultivators, to reciprocate the benefits which they
have so long received from their transatlantic breth-
ren, and to develope the resources of a country,
which offers such an extensive range of research to
the naturalist. Many of the most useful and magni-
ficent acquisitions of the groves, fields, gardens, and
conservatories of Europe are natives of the western
hemisphere. The indigenous forest trees, ornamen-
tal shrubs, flowers, fruits, and edible vegetables of
North America, are remarkable for their variety,
size, splendour, or value. Extending from the pole to
the tropics, and from the Atlantic to the Pacific,
North America embraces every clime, and every
variety of soil, teeming with innumerable specimens
of the vegetable kingdom.

The natural divisions of horticulture are the
esculent or kitchen garden, seminary, nursery, fruit
trees, and vines, flower garden, green-houses, *arbore-
tum* of ornamental trees, and shrubs, the botanical
and medical garden, and landscape or picturesque
gardening. Each of these departments requires to
be separately studied before it can be managed so as
to combine utility and comfort with ornament and
recreation. To accomplish this on a large scale,
artists, scientific professors, and intelligent and ex-
perienced practical superintendents, are employed.

The kitchen garden is an indispensable appendage to every rural establishment. In its simplest form, it is the nucleus of all others. Containing small compartments for the culture of esculent vegetables, fruits, and ornamental plants, these may be gradually extended, until the whole estate assumes the imposing aspect of picturesque or landscape scenery. The details of the several grand divisions of horticulture are to be learned from the numerous authors who have devoted their especial attention to each, and those which have been named, with many others, should be consulted by every gentleman who wishes to participate in the comforts and luxuries of a garden. The most valuable and interesting branches of gardening generally, are of course those which include the culture of esculent vegetables, fruits, and ornamental plants. These may be enjoyed, in various degrees, by all the proprietors of the soil. It is only necessary that information should be disseminated, and examples presented by the more intelligent and opulent, to remove the too common prejudice, that gardens are costly and useless appendages, requiring great expenditure and labour, without any adequate profit or satisfaction. So far from this, there is not a farmer, not an owner of an acre of land, who will not be enriched or gratified by devoting a portion of his industry to the tillage of a garden: they may find many hours which can be thus profitably and pleasantly employed. Personal attention, with judicious arrangements, and a proper division of labour, will accomplish much. Many of the most valuable products of agriculture were first introduced, and their qualities tested, in the garden. "If, therefore," says the learned and eloquent Poiteau, "we would ascend to the origin of Agriculture, it is in the garden that her cradle will be found. There, like the young Hercules, she first tried her powers, and prepared, like him, to overrun the world, which she speedily cleared of monsters, and bestowed upon man the laws of civilisation.

In England, the eye is continually struck with cottages embowered amidst fruit trees, shrubs, and flowers, while a neat compartment of esculent vegetables supplies much of the food for the support of the inmates. In Germany, Holland, and a portion of Italy, it is the general attention which all ranks bestow upon the grounds surrounding their habitations, that gives such a pleasing aspect to those countries. But little attention has yet been paid in the United States of America to the planting of forest trees, ornamental shrubs, and flowers, although the native varieties are numerous, highly valued in other countries, and constitute the most interesting exhibitions in those celebrated establishments, which are enriched by collections from all quarters of the globe. Arboriculture claims attention, not merely for the purposes of rural embellishment, but to replace the valuable timber trees, which are fast disappearing throughout the Atlantic states. The forest trees of North America exceed 140, while in Europe there are only thirty-seven. There are fifty-three species of the oak, seventeen of the pine, fifteen of the walnut, and eight of the maple. Of those magnificent trees which compose the genus of the *magnolia*, but fifteen are known, nine of which belong to the United States.

In all ages and countries, flowers have been universally cherished. "Who," asks Boursault, "does not love flowers? They embellish our gardens; they give a more brilliant lustre to our festivals; they are the interpreters of our affections; they are the testimonials of our gratitude; we present them to those to whom we are under obligations; they are often necessary to the pomp of our religious ceremonies, and they seem to associate and mingle their perfumes, with the purity of our prayers, and the homage which we address to the Almighty. Happy are those who love and cultivate them." The ancients paid particular attention to flowers. They were in great request at the entertainments of the wealthy; they were scattered before the triumphal chariots of conquerors; they formed the distinguishing insignia of many divinities; they glitter as gems in the diadem of the seasons, and constitute the mystical language of poetry. We are told that Descartes prosecuted, with equal ardour, astronomy and the culture of flowers. The great Condé devoted his leisure hours to that delightful pursuit, and the vase of flowers was daily renewed upon the table of lord Bacon, while composing the volumes of his sublime philosophy. In the cities of Europe, flower-markets, for the sale of bouquets and ornamental plants, are as common as those for fruits. In America, these delicate daughters of the sun have not received that attention which indicates the highest state of civilisation; but a taste for floriculture is increasing throughout the Union, and ornamental plants embellish the country seats of the opulent and the dwellings of honest industry. Botanical gardens have been established in several of the states, and the large cities can now boast of their marts and exhibitions of flowers. Among the productions on horticulture, there is no single work in the English language so valuable as Loudon's Encyclopædia of Gardening; but all the numerous publications of that distinguished writer, in the various branches of rural economy, are remarkable for the fund of intelligence which they contain. See *Gardening*.

HORTUS SICCUS. See *Herbarium*.

HORUS, in fabulous history, the son of Osiris and of Isis, commonly represented as a child in the arms of his mother, and sucking at her breast, was the last of the deified kings who reigned in Egypt. When Typhon killed Osiris, he also sought every where for Horus; but his mother had given him to Latona, who kept him concealed. Nevertheless, he was killed by the Titans; but his mother restored him to life, and made him immortal. She also taught him the healing art, and endowed him with the power of prophecy, which he used for the advantage of men. His father ascended from the infernal regions, and taught him the art of war. When he was grown up, he levied troops, and made war against Typhon, whom he succeeded eventually in conquering. (See *Typhon*.) Hammer declares him to be Janus, or Amenthes.

HORUS APOLLO. See *Horapollo*.

HOSANNA (*help him, God!*) was a solemn salutation of the Jews, with which they addressed their kings and heroes. They also gave this name to a prayer which they pronounced on the feast of tabernacles. Rabbi Elias says that the Jews called the palm branches, which they carried on this day, also *hosanna*.

Hosanna Rabba, or *Grand Hosanna*, is a name which the Jews give to their feast of tabernacles, which lasts eight days, because, during the course thereof, they are frequently calling for the assistance of God, the forgiveness of their sins, and his blessing on the new year.

HOSEA; the first among the minor prophets of the Old Testament. His book was admitted into the canon after the Babylonish captivity. He appeared in the kingdom of Israel about 770 B. C. to denounce the vices of his contemporaries, and threaten them with divine punishment. He has represented, in the three first chapters of his book, the guilty violation of their covenant with God, by an allegory, very common among the Hebrew poets,

f a marriage covenant which the wife has violated, eferring to the covenant which God had concluded ith the Israelites. The remaining chapters treat f the same subject, under different figures, with eproaches, exhortations, and threats; he predicts ie approaching exile of his countrymen, and the onsoling promise of the final return of an improved eople forms the conclusion of this prophetical book. le is remarkable for his laconic style, hastening om image to image, and from reflection to reflec- on. The stream of a powerfully excited fancy ees him irresistibly onward. Hence he does not hibit the roundness, grace, and harmony, which haracterise the other prophets. The frequent and dden interruptions, and the abrupt peculiarity of is images, render his book, in many places, obscure, nd the coarseness of his expressions frequently versteps the bounds of delicacy. Still, on account f his marked originality, the depth and truth of his ntiments, and the strength of his language, he will lways maintain a distinguished rank among the lebrew poets.

HOSPITAL; a building appropriated for the eception of sick, infirm, and helpless paupers, who re supported and nursed by charity; also, a house r the reception of sick or insane persons, whether aupers or not; or an establishment for seamen, oldiers, foundlings, &c., who are supported by harity. Hospitals for the sick and wounded, and lso those for the poor or infirm, were wholly nknown among the ancients. In Athens, those ho had suffered in the public service were fed in ie *prytaneum*, but there was no asylum for them in ase of sickness. In Sparta, where all the citizens ie together, there was no institution for the sick. n Rome, neither Numa nor Servius, neither the onsuls nor the emperors, thought of making any rovision for the poor or the infirm. The first estab- shment of hospitals must be ascribed to Christians; ome attempts had already been made by them in ome, about the end of the fourth century. abiola, a pious Roman lady, established an institu- on for receiving poor and sick persons; and, after ie establishment of Christianity, the emperors at onstantinople built many hospitals for poor infants, r aged people, for orphans, for strangers, &c. he emperor Julian attributed the rapid progress of ie Christian religion, in great part, to these chari- ible institutions, and proposed to imitate the exam- le of the Christians, in his attempts to restore aganism. Piety impelled many individuals to ppropriate a part of their funds to religious and haritable purposes. Institutions thus formed were f great benefit to the sick poor, but soon became able to abuses. The funds devoted to charitable urposes were unalienable, and the monastic institu- ons with which they were connected were contami- ated with looseness and extravagance. In Catholic ountries, the hospitals are generally attended by uns, sisters of mercy, &c., of whom even Voltaire ys, that there is nothing nobler than the sight of elicate females, sacrificing beauty, youth, often ealth and rank, to devote themselves to the relief f human miseries, under the most revolting forms. n less civilized countries, we find them to be fright- l abodes of misery. The plague-hospital at Alex- ndria, described by Madden, or the insane hospital Cairo, presents a scene of horrors not inferior Dante's description of the feverish people, one bove the other, in his *Inferno*. If possible, it is best, infirmaries, to separate certain patients. Thus, in l populous cities, there should be an hospital for curables. It is never advisable to have the insane ospital nor the lying-in hospital connected with hers; still less, as is the case in many places in Europe, to connect the work-houses and the hos- pitals.

In Paris, there are thirty-two hospitals; in London, about the same number. Those in Paris are sup- ported by government. The name of *hôpital* is generally applied to the establishments for the sick, and that of *hospice* to those in which the aged, chil- dren, and infirm people are received. More than 15,000 beds are made up at these different establish- ments, and the annual expenditure is over a million of dollars. From 40 to 50,000 persons are annually accommodated in *hôpitaux*, or about 4000 at a time. The *hospices* generally contain nearly 10,000 persons at the same time. The hospitals of Paris are generally clean and in good order, for which they are indebted to the *sœurs de la charité*, who wait upon the sick, and nurse them with the greatest care. They are not always favourably situated, being often too much confined. The *Hôtel des Invalides* is destined for military veterans, and contains 7000 men. It has a library of 20,000 volumes. The *Hôtel Dieu* is the most ancient hospital in Paris, and is situated in the most populous part of the city. Before the revolu- tion of 1789, 5000 sick were here huddled together in 1400 beds; but several monasteries were then converted into hospitals, and lying-in women, scro- fulous patients, lunatics, children, &c., who had all been crowded together, were separated, and placed in different establishments. The *Hospice de la Sal- pétrière* generally contains several thousand poor women, who are kept at work. In one part is a prison for prostitutes. The *Hôpital de la Charité* receives only men attacked by acute diseases; the *Hôpital St Louis* is used as a pest-house; the *Hospice des Enfans Trouvés* is for foundlings, about 6000 of whom are annually born or received in it; the *Hospice de l'Accouchement* receives about 3000 women annually; the *Hôpital des Quinze Vingts*, or for 300 blind persons, admits only the indigent; the actual number is over 400.

Among the hospitals in London and vicinity, are the Foundling Hospital; the Magdalen Hospital, for reclaiming prostitutes; the Greenwich Hospital and Naval Asylum (See *Greenwich*); Guy's Hospital, for sick persons and incurable lunatics; Middlesex Hospital; Bethlehem Hospital (commonly called *Bedlam*), for lunatics, &c. The Chelsea Hospital is appropriated for the reception of sick and superannu- ated soldiers; the number of pensioners is about 400, besides the out or extraordinary pensioners.

The hospitals in the United States of America are on a smaller scale than those of Europe, and fewer in number, but very well managed.

Most of the large towns and counties throughout the British islands have hospitals, of which the best regulated are conducted as follows:—There are several large wards, each containing from twelve to sixteen or eighteen beds. The bedsteads are gene- rally of iron, and hung round with cotton curtains; and each bed is separated by a distance of four feet, or upwards, from the one adjoining; at the head of each is a small cupboard or shelf, for containing the bottles, cups, and medicines, belonging to the patients. There are also a few smaller bedcham- bers for the reception of particular cases, which it may be judged advisable to keep separate from the others. Each hospital has a matron, house surgeon, and apothecary, resident within its walls; and some- times there is also a resident chaplain and secretary. The duties of the matron consist in regulating the night and day nurses, and the washing and laundry department; as well as the purchase of the neces- sary supplies of provisions, and keeping a general superintendence over the kitchen and messes of the sick. The surgeon and apothecary performs all the

minor operations, and takes care of all casualties and accidents in the absence of the principal surgeons. Both these parties keep a set of books, in which they enter in writing all the details of their respective duties. The apothecary takes care of the pharmacy and prepares all the medicines prescribed from time to time by the surgeons and physicians. There is a well lighted room set apart for the performance of operations, and a dead room for the reception of corpses previous to interment. The dressing the sores, &c., of the infirm is performed by the young hospital pupils, under the directions of the surgeons. The nurses relieve each other day and night in a regular manner. Particular wards are set aside for the reception of persons labouring under various and peculiar denominations of disease, and their distribution is regulated by the house surgeon, under the control of the physicians and surgeons. The doors of the hospital are guarded, and kept under lock and key, and the porter receives orders not to admit wine, spirits, tobacco, or any improper articles to the sick, unless with the approbation first obtained from the house. The relations of the sick are only admitted at certain hours on certain days, except on special occasions. There is a garden or airing ground attached to most hospitals, where the convalescents being permitted to walk about, are further restrained from quitting the house, unless by the express concurrence of the surgeons and physicians. The greatest care and attention is paid to the cleanliness and ventilation of the wards, and the windows open at top and bottom. The flock beddings are frequently destroyed and renewed. All contagious diseases are placed either in separate wards or distinct buildings. The chaplain is instructed to read prayers daily to the sick, and to administer the sacrament, and consolations of religion to those whose minds are prepared to receive them. All patients who are disorderly or disobedient are discharged. The general management and control of the house is vested generally in a committee of subscribers, who meet once a week or fortnight, and receive reports of vacant beds, deaths, and other casualties. There are generally two days in the week set apart for discharging and receiving patients. But accidents are received at all times and at all hours. All patients bring with them letters of recommendation from annual subscribers or governors, by the form of which the person recommending binds himself to remove the patients, if required, or should they die, to be answerable for the expenses of their funerals. The matron, house surgeon, secretary, and chaplain generally receive an annual salary and board. The surgeons and physicians are rewarded only by votes of thanks or permission to receive fees from the hospital pupils. In some county hospitals there are medical libraries annexed to the house for the use of the medical officers and pupils, who subscribe a small sum annually to their support; and sometimes too there is a museum of specimens of morbid anatomy. Sometimes the surgeons and physicians read clinical lectures on the treatment of rare and dangerous cases.

The great advantages arising to the public from well regulated hospitals can be easily understood and appreciated. To the forlorn and destitute poor they are a blessed retreat in the hour of calamity and need; while they afford an admirable opportunity for the improvement and acquisition of surgical and medical science. Almost all the greatest improvements in the practice of medicine and surgery have been imagined and carried into effect by the officers of public charities. The advantages of lunatic asylums and lock hospitals have long been felt and confessed by all ranks of society. In a word, there cannot be a more delightful reflection, than the consciousness of being in any way instrumental in clothing and feeding, and curing these poor victims of disease and misery. Neither is there any other method whereby so much charity can be dispensed in so truly economical a manner.

HOSPITAL FEVER is a malignant form of fever which has received this title from its being most frequently met with in places of this sort, especially in military and other large hospitals, where many men are shut up in a small place and in close air. Under such circumstances, almost any fever will assume a more malignant character, and become more or less contagious. The causes of common hospital fever are to be found in the want of good and wholesome provisions, fatigue, care, and anxiety, and, more especially, the corruption of the air, which is always produced by many men living in even a large building, or by fewer, if shut up in a small space; and these causes are found to produce this effect, not only upon the soldier, but upon the poor, of all kinds, and in all places. A similar disease is developed among those confined in prisons and ships, and among the inhabitants of damp, narrow huts, and is called *gaol*, *ship*, or *typhus fever*. The common fever, which often prevails under the last name, has not, indeed, all the characteristics of this form of fever, although it easily assumes them. The *hospital fever* is only a high degree of that form of disease which is usually called a *putrid*, or *putrid nervous fever*; that is, a fever with diminished power and action of the whole nervous system. The contagion produced by hospital, or putrid fever, is capable of producing fever in others, although the fever so produced is often of a different character and appearance; and it should be remarked, that it almost ceases to be contagious by removal to a pure air and well ventilated apartments. The form assumed by the disease is much affected by the general state of the weather, and by the constitution of the individual. In strong, young, well-fed, and full-blooded persons, in whom the arterial system is full, and an inflammatory disposition much developed by stimulating drinks, or a dry, cold air, which is very favourable to inflammation, an inflammatory excitement of the whole nervous system takes place, which may even run to the height of an inflammation of the brain, with delirium, &c. In others, who have been much reduced by bad diet, and by exposure to warm, moist weather, a gastric form of fever is developed, attended also with violent nervous symptoms. If it happens to seise persons in whom the nervous and circulatory systems are much debilitated by any of the causes above named, a fever more like the true hospital fever is produced, which is termed a *typhus*, *putrid*, or *adynamic fever*. In truth, we scarce ever see a form of this fever which is quite unmixed, but all the forms pass into each other, with innumerable shades of accidental difference, arising from difference of the parts most affected, &c. It will therefore be at once evident, that no universal mode of treatment can be laid down, but that the treatment must be varied according to the causes of the disease, the state, constitution, and previous habits of the sick, &c., and according to the changes which are constantly occurring in the course of the disease. The most important modes of guarding against the hospital fever, are to remove the causes of it, to purify the air, to improve the nourishment, allowing a generous diet, and to prevent the sick from being accumulated in great numbers in one apartment. The wards or rooms in which they are or have been collected, should be purified by the vapours of strong mineral acids, which are easily obtained by mixing common

alt and red lead or manganese in a vessel of any sort, nd then stirring into it a portion of oil of vitriol or ulphuric acid. But above all, the rooms should be ell ventilated, and the clothes of all kinds should e changed daily.

HOSPITAL. See *Hopital.*

HOSPITALITY. The rites of hospitality were cknowledged and practised from the earliest antiuity, and in the most barbarous ages. Natural eling taught men to receive the stranger with kindess, in times when there was no commercial interourse between different countries, and nothing but ecessity could induce an individual to leave his ome. We find hospitality enjoined in the Mosaic ritings, in the poems of Homer, as well as among he Arabs, the Germans, and almost all the nations of ntiquity; but different ideas were held in different laces as to the degree and extent of the service hich was due to the guest. In this respect no peole surpass the Arabs. Among them the host receives he stranger who comes to his tent with fraternal indness. If his provisions fail, he conducts the guest o his neighbour, who now entertains them both with qual generosity. This simple custom was consecrated among the Greeks by their religion. Jupiter, ho was hence surnamed the *hospitable* (Xenios) was he guardian of strangers, and the avenger of the njuries offered them. As we learn from Homer, the elief that the immortals sometimes appeared on arth in human shape contributed to the observance f the rites of hospitality. In the early times of reece, when increasing commercial intercourse comelled men to make frequent journeys, individuals ntered into agreements to afford each other mutual ntertainment, whenever business should bring either f them to the country of the other; and this they romised not only for themselves, but for their chilren and posterity. In Homer we find this custom poken of. The visitor was kindly saluted. He was athed, clothed, entertained, and his conversation stened to with pleasure. After nine days, if the tranger had not previously made himself known, the uestion might be put to him, "Who and whence rt thou?" If he declared himself to be connected y ancient ties of hospitality between their ancestors, is host was rejoiced to have renewed the ancient ond. Still more welcome was the guest, if he could ow the half of the ring broken between their thers, in perpetual token of their agreement. The ost made presents to the guest at his departure, hich were carefully handed down in the family.

HOSPITIUM (*Latin;* an inn) signifies either a ttle convent belonging to a religious order, occupied y a few monks, and destined to receive and enterain travelling monks, or houses in uninhabited mountains, erected for the purpose of receiving travellers ho have lost their way, or are exhausted by fatigue.

HOST (from the Latin *hostia*, a victim for sacrice.) *Hostia* means, in the Latin of the Christian hurch, Jesus Christ, in so far as he sacrificed himself r men; and *hostia*, or *host*, is also used for the read (or wafer) and wine in the eucharist, as conining the body and blood of Christ, among those hristian sects who believe in the presence of Christ the bread and wine. As the wafer alone is given laymen in the Catholic church, as containing both e body and blood of the Redeemer, the term *host* usually applied to the consecrated wafer. Common read was originally used at the Lord's supper; but read baked particularly and solely for this purpose, rge, round *oblatæ*, came into use, in the fourth cenry, which it was customary to break after conseation into as many pieces as there were communiants. The hosts, or smaller wafers, were introduced to the Latin church in the twelfth century. The Greeks use, for the eucharist, leavened bread, whilst the Roman Catholics use unleavened wafers; which custom was followed by the Lutherans. It is well known, that the Calvinists on the continent, not believing in transubstantiation or consubstantiation, prefer unleavened bread to the wafers. This bread has been adopted in Prussia in the new ritual for the united Lutherans and Calvinists; yet any person, preferring the wafer, may have it, as, at the end of the celebration of the Lord's supper, it is offered to them. The Protestants in Britain and America use common leavened bread. For the elevation of the host, see *Elevation*, and for more information, see *Mass.*

HOSTILIUS. See *Tullus Hostilius.*

HOTEL (*French*); the mansion of a grand personage; for instance, *Hôtel de Condè.* Formerly the palace of the king was simply called *l'hôtel;* hence *grand prévôt de l'hôtel. Hôtel-Dieu* is an appellation for the ordinary hospitals of the sick; hence the nuns of Hotel-Dieu. *Hôtel de Ville* is, in France, the town-house. *Hôtel* is also used for an inn, like the Italian *osteria*, with which it has a common origin, both being derived from *hostis.* In this sense, it has passed into the English language.

HOTTENTOTS. The natives of the southern part of Africa are reducible to two distinct families, the Hottentots, and the Betjuanas or Bushwanas (q. v.), to whom the Caffres (q. v.) are related. To the former, or Hottentot family, belong also the Bosjesmans or Bushmen, the Koranas and the Namaquas. When the European colony was first established at the Cape, (see *Cape of Good Hope,*) the inhabitants of the country between it and the Orange river were Hottentots, divided into various tribes. Of a moderate height, lean, with high cheek bones, thick lips, small, half-closed eyes, woolly hair, a mild expression, but indolent and unenterprising, they were despised and oppressed by the colonists. Their filth and indolence, and the harshness and poverty of their language, led the Europeans to consider them as little better than brutes, and by their treatment they almost reduced them to that condition. But a kinder treatment, introduced by the Moravian missionaries, has shown them to be capable of civilization, and not to be wanting in ingenuity and industry. The colonial Hottentots, who were at one time rapidly diminishing on account of the mode of life to which they were reduced, increased in number from 17,431 to 30,549 between 1807 and 1823. Their mutual affection, kindness, integrity, chastity, and hospitality are commended by travellers who saw them while yet comparatively independent. The following exhibits the costume of a male and female Hottentot.

A *kros* or *karos* (sheep-skin) serves the Hottentot as a dress by day, a bed by night, and a winding-sheet in the grave. A thick plaster of dirt and grease covers his head and body; a blunt javelin (*assagay*) and a dart were formerly his only weapons. The Hottentots eat animal food voraciously, but are often reduced to great abstinence. Milk and water are their common beverage, and they smoke hemp when they cannot get tobacco. Their villages, called *kraals*, are a circular cluster of beehive-shaped huts, which are covered with mats woven by the women; an opening in front serves as a window, a door, and chimney. The Bushmen (q. v.), or wild Hottentots, resemble the Hottentots, strictly so called, in their features and language. The Koranas lead an indolent, wandering life, on the Orange river and its vicinity. The Namaquas are a Hottentot tribe, inhabiting the country on each side of the Orange river, in the lower part of its course. See *Pringle's Interesting Sketches of Southern Africa.*

HOTTINGER; a Swiss family, which has produced several distinguished scholars, particularly theologians.

1. JOHN HENRY the elder, born at Zurich in 1620, made such progress in the ancient languages at school, that he was sent to foreign universities at the public expense. In 1638, he set out for Geneva, and went thence to France and Holland. He here studied the Oriental languages in Groningen. In 1641, he returned, through England, back to his native country, enriched with large stores of knowledge. In 1642, he was appointed professor of ecclesiastical history in his native city, and, in 1643, professor of catechetics and the Oriental languages, and contributed much to promote the study of Oriental literature. His reputation was widely spread by his numerous writings upon this subject. He explored the relations of the Eastern languages with uncommon assiduity, and showed what advantages might be thence derived for the interpretation of the Scriptures, in his *Grammatica quatuor Linguarum, Hebr., Chald., Syr. et Arab. Harmonica* (Zurich, 1649, 4to); in his *Etymologicum Orientale* (Frankfort, 1661); *Thesaurus Phil. seu Clavis Scripturæ* (Zurich, 3 edit., 1696, 4to), by which book he contributed greatly to the revival of the study of Oriental literature; and in many other works. In close connexion with this study, he also pursued that of Eastern history and archæology, and shed much light on the history of the Jews and Mohammedans, as generally on the religions and religious sects of the East, in his *Historia Orientalis* (Zurich, 1651 and 1660, 4to); *Promtuarium seu Bibliotheca Oriental.* (Heidelberg, 1658, 4to), and other works, as likewise in his very valuable *Historia Ecclesiastica N. T.* (Zurich, 1651—67, 9 volumes), extending to the reformation, which, although derived from authentic sources, is not free from prejudices, and is somewhat irregular in its arrangement and unpolished in its style. He endeavoured, especially, to obtain accurate information concerning the state of the Eastern churches; and the results of these inquiries are scattered through his writings. His reputation in the literary world was so great, that the elector palatine, by a letter written with his own hand, obtained permission from the council at Zurich for him to spend a few years at Heidelberg, to revive the university there, which he did from 1653 to 1661, with the happiest results. But his endeavours to unite the Protestant sects, which the elector favoured, encountered the usual obstacles. In 1658, he accompanied the elector to the diet at Frankfort, where he became acquainted with the first men of Germany, and intimate with the great Orientalist Ludolph. They formed a plan of sending young men, skilled in Eastern literature, at the prince's expense, to make inquiries into the state of the African and particularly the Ethiopian churches. After his return to Heidelberg, the elector prevailed on the council at Zurich to prolong his leave of absence. He finally returned, in 1661, to Zurich, loaded with honours. Here he was appointed perpetual rector of the university, and received many other honourable offices. He was even sent ambassador to Holland. In 1667, he was on the point of complying with a repeated invitation to visit the university at Leyden; but death prevented him; he was drowned in the Limmat, with three of his children.

2. His son JOHN JAMES, born at Zurich, 1652, began his studies under his father's superintendence, and afterwards held many clerical offices; was, in 1698, professor of theology at Zurich, and died in 1773. J. J. Lavater has written his life. The most valuable of his works is his Ecclesiastical History of Switzerland (*Helvetische Kirchengeschichte*), in which he endeavoured to prove the excellence of his church.

This latter is not to be confounded with JOHN JAMES HOTTINGER, who was born 1750, was professor at Zurich, and died Feb. 4, 1819, known by his editions of the classics, as Sallust and the work of Cicero *De Divinatione*, his translation of this work and of the Offices, the characters of Theophrastus, and many others. This acute and elegant scholar acquired a high reputation, not merely as a philologian, but also for his works of general criticism, and his other literary productions. His Essay towards a Comparison of the German with the Greek and Roman Poets, is among the most excellent works of the kind.

HOUND (*canis sagax*, L.). The hound forms one of the varieties of spaniels, and is distinguished by its long, smooth, and pendulous ears. The blood-hound (q. v.) has already been described, and appears to have been the origin of the other sub-varieties, the principal of which are the foxhound, harrier, and beagle. England, perhaps, excels all other countries in her breed of hounds, not only from the climate being congenial to them, but also from the great attention paid to their breeding and management. The points of a good hound are thus laid down:—His legs should be perfectly straight, his feet round and not too large, his shoulders back, his breast rather wide than narrow, his chest deep, his back broad, his head small, his neck thin, his tail thick and bushy. As to the size, most sportsmen have their prejudices, some preferring them small, and others large; for general service, however, it appears that a medium is the best; this is the sentiment of Somerville:

> "For hounds of middle size, active and strong,
> Will better answer all thy various ends,
> And crown thy pleasing labours with success."

It is very essential that all the hounds in a pack should run well together; to attain which they should be of the same sort and size. The management of hounds may be considered as a regular system of education, from the time they are taken into the kennel. The feeding of a kennel of foxhounds is one of the most striking illustrations of the power of training to produce complete obedience. The feeder stations himself at the door, and calls each dog individually; the animal instantly advances, the rest, however impatient they may, remaining quiet till their turn arrives. In these kennels, a barbarous custom of these dogs towards each other has sometimes been observed. If a hound gets down of his own accord from a bench on which he has been lying, no notice is taken of it by the others; but if he should

nfortunately fall from the bench by accident, his com-anions fly at him and worry him to death. The beagle the smallest of the dogs kept for the chase, and is nly used in hunting the hare, and, though far inferior speed to that animal, will follow, by its exquisite ent, with wonderful perseverance, till it fairly tires ie hare. The harrier differs from the beagle in eing somewhat larger, as well as more nimble and igorous; they are also used almost exclusively in ie chase of the hare. One of the most extraordin-ry hunts of this animal took place in England some ears since, showing the perseverance of her pursuers. After a hard chase of sixteen miles, the timid creature, nding herself closely pushed by the dogs, took to ie sea, and, being followed by the whole pack, after raving the ocean for near a quarter of a mile, fell a acrifice to her stanch pursuers, and was brought afe on shore by one of them.

HOUR; the twenty-fourth part of a day (q. v.). n many countries, the hours are counted from mid-ight, and twelve hours are twice reckoned. But in ome parts of Italy, twenty-four hours are counted, eginning with sunset, so that noon and midnight re every day at different hours. Each hour is ivided into sixty minutes, these into sixty seconds, iese into sixty thirds, &c. Many nations are totally nacquainted with the division of the day into twenty-our equal parts; with others, the hours of the natural) day are longer or shorter than those of the ight. (See *Day*, and *Sidereal Time*.) The fixed tars complete their apparent revolution round the arth in twenty-four hours of sidereal time, and herefore pass through 360 degrees in twenty-four ours, or fifteen degrees in one hour. If we suppose wo observers fifteen degrees of longitude distant om each other, one of them has the fixed star one our of sidereal time, or the sun one hour of solar me, later in his meridian than the other. Meridians re thence called *hour-circles*, or *horary circles*, by hich name they are known in dialling. A *horary ngle* is that angle which any hour-circle makes with ie meridian of the observer. If, for instance, it is 0 o'clock A. M. according to the sundial at the lace of observation, and the sun is therefore two ours distant from the meridian, its hour-circle makes n angle of 30° with the meridian. See *Dial*.

HOURS; with Homer, goddesses of the air and ie winds, the portresses of heaven. The old onic bard does not fix their number, nor assign iem names. But, according to an old tradition, the thenians knew two—Thallo, the goddess of blos-oms and of spring, and Carpo, the goddess of fruit-earing autumn. We likewise find these two ientioned as Graces (q. v.), who, for a long time, ere considered, if not the same with the Horæ, at ast as very closely connected with them. They ere not only portresses of heaven but goddesses of ie seasons: the idea of the Horæ was therefore anged, but not so much so that the latter representa-on may not be easily derived from the former. The lea of the goddesses of beauty, which was afterwards nited with that of the Graces and Horæ, was also asily deduced from their original character. *Hora* gnifies—1. originally, the air; with this idea is onnected—2. the idea of time, which occurs frequent-r in Homer (*hora*, among the Romans, signified *our*); and from this—3. the year. It is not with im, however, the expression for any particular eason: when he wished to designate these, he added ie term *spring*, *winter*, &c. We then find, in a arrower sense—4. *hora*, the season of spring or ummer; and, because this is the most beautiful eason—5. the time of the bloom of man, of youth, eauty. Why the Hours and Graces should be con-idered as goddesses of the seasons is not difficult to be understood, when we remember that the Graces (according to the etymology of the name, *Charites*) were the givers of joy. We here speak not of the later Graces, but of the early Attic—Hegemone, the governess of the year, and Auxo, the giver of increase. With these two, the Attic Hours were often confounded, and they were afterwards distinguished by making the Hours bring in the seasons, and representing the Graces as rendering them agreeable. Thus far, the difficulty of explaining this fable is not very great; but it increases, when we consider the later representation of the Hours in Hesiod. According to this poet, there are three Horæ, daughters of Themis, whose names are Dikê (Justice), Eunomia (Order) and Eirene (Peace). It is obvious that these have nothing in common with the portresses of heaven or the goddesses of the seasons; a physical idea lying at the foundation of the latter, and a moral idea forming the foundation of the former. The Hours experienced the same changes as the Graces. As the idea of the latter was transferred from the physical pleasure to moral beauty, so in the former, there was a transition from the physical to moral order, while they still continued the goddesses of beauty and loveliness. But how happened it that three political, moral abstractions, such as the Hours, could so supplant the goddesses of time and of the year, that the latter should almost sink into forgetfulness? Without doubt, Themis, was here the turning point of the transition. The Hours, as goddesses of time, were the daughters of Themis, as she was at first conceived of as the goddess of physical order, particularly in regard to time. These daughters may have had in the beginning, entirely different names. When Themis is afterwards considered as moral order, these moral abstractions are attributed to her as daughters, and these supplant either the early Attic, or the still earlier nameless Homeric goddesses. In this way beauty is also again received as the quality of the Horæ, so that the goddesses of beauty are looked upon as goddesses of law and order. That all these ideas were often confounded together, and thus rendered the mythology of the Horæ very complicated, appears from the double list of them in Hyginus, who twice names eleven Hours. All these names are significant, and, in the first catalogue, we find merely the daughters of Themis as seasons and authors of civil prosperity; but, in the second, they appear in a narrower signification, as divisions of the day and of life. According to the usual accounts, however, there are three Horæ, who, in the words of Hesiod, bring to perfection all the undertakings of men. Statuary, in the earliest times, represents only two; for example, on the throne at Amyclæ. On the other hand, there were three on the throne of the Olympian Jupiter. On a candelabrum in the villa Albani, they are represented in the attitude of dancers, with their robes gathered up by a loop fixed on the side. The first figure bears in her hand a fruit-dish, and near her lie fruits, a symbol of autumn; the other two hold nothing in their hands, but at the feet of one burns, upon an elevated stone, a fire, the emblem of winter, and at the side of the third is placed a flower, the emblem of spring. Their heads are crowned with garlands of leaves. On a candelabrum in the Farnese palace, there are four figures; those on a sarcophagus in the villa Albani are remarkably beautiful and expressive.

HOURIS; virgins who, in Mohammed's paradise, are one of the rewards of the blest. According to the description of the Koran, they surpass, in their dazzling beauty, both pearls and rubies; they are subject to no impurity, and reserve the languishing glances of their dark black eyes for individual

admirers. They dwell in green gardens, beautiful beyond description, where they are to be found in bowers lying upon green cushions, and the most beautiful tapestry, and flourishing in perpetual youth. Mohammed has omitted nothing to render his paradise delightful to the voluptuous inhabitants of the East. But he had a pattern in the religion of the Parsees, in whose paradise, called *Behisht* and *Menou*, the black-eyed nymphs, *Hurani bishisht*, are endowed with no unsubstantial loveliness. A paradise for women is also provided, abounding in pleasures of every kind. A further hope is held out to affectionate wives, for it is left optional with their husbands to take back their wives in the place of the Houris.

HOUSE-BREAKING. See *Burglary*.

HOUSE-BURNING. See *Arson*.

HOUSEHOLD TROOPS. See *Guards*.

HOUSELEEK (*sempervivum tectorum*); a succulent plant, having the leaves, which are all radical, disposed somewhat in the form of a double rose. The stem rises to the height of eight or ten inches, and bears a few purplish flowers, which have twelve or fifteen petals and as many ovaries. It is a native of Europe, where it grows in the clefts of rocks, on old walls and the roofs of cottages. The other species of *sempervivum*, nearly thirty in number, are all natives of Madeira, the Canaries, and the countries about the Mediterranean.

HOUTMANN, Cornelius, founder of the Dutch East India trade, was born at Gouda, in the middle of the sixteenth century. Being obliged to spend some time in Lisbon, he made inquiries, from curiosity, concerning the trade with the Indies, which then exclusively enriched Portugal, and concerning the routes followed by the Portuguese. He soon became sensible of the great advantages which his countrymen might derive from this commerce; but all such inquiries being strictly forbidden to foreigners, Houtmann was suspected, imprisoned, and condemned to a large fine. Being unable to pay this, he offered to the merchants of Amsterdam to reveal every thing relating to the India trade, if they would free him from his confinement. They accordingly ransomed him, and, in 1594, he returned to his native country, and performed his promise. The merchants then formed a company, which they called the *company of remote parts*, fitted out four vessels, and made Houtmann supercargo. The flotilla set sail April 2, 1595, and arrived before Bantam, Java, June 23, 1596. They were kindly received, but the Portuguese soon involved them in difficulties with the natives. They made many attempts upon the Indian islands, but were at last compelled to return, their forces being diminished to less than one third of their original number. They arrived again, Aug. 14, 1597, in the harbour of Amsterdam. Although this expedition had brought but little profit, it was immediately determined to fit out another. After the example of Amsterdam, similar companies were formed in other ports of the United Provinces, and, finally, all united into an East India company, which destroyed the trade of the Portuguese, and drove them out of the East Indies, and which continued to monopolise the trade till the end of the eighteenth century. Houtmann went again, in 1598, to the East Indies, as commander of the second expedition, and was this time more successful. After he had visited Madagascar, the Maldives, and Cochin-China, he landed at Sumatra, where he was at first kindly received by the king, but was afterwards thrown into prison. The ships, which were already laden, returned home, and it was believed that Houtmann was dead. But Dec. 31, 1600, he came with three sailors on board a Dutch ship, lying off Acheen, and declared that he did not wish to escape, as he hoped to receive his freedom, and to conclude with the king a treaty which would be advantageous to his countrymen. The king was really favourably disposed towards him, but yielded to the influence of the Portuguese, and sent Houtmann into the interior of the country, where he afterwards died. Many interesting accounts appeared of these first voyages of the Dutch, but they published nothing officially concerning their later voyages.

HOVEDEN, Roger de; an English historian, who flourished in the reign of Henry II. He was born at York, and, entering the church, was in some time professor of theology at Oxford. He was also a lawyer, and he is said to have served the king in the capacity of chaplain, and in other confidential offices. After the death of Henry, he applied himself to the compilation of English history, and wrote Annals in Latin, commencing at 731, the period at which Bede finished, and bringing down affairs to the third year of John, 1201. His style is defective, but he is highly esteemed for his diligence and fidelity, and, according to Leland, surpasses all the writers of his class who preceded him. Vossius asserts that he is the author of a history of the Northumbrian kings, and of a life of Thomas-a-Becket. Such was his authority, that Edward I. caused a diligent search to be made in all the libraries for copies of Hoveden's Annals, in order to ascertain the homage due from the crown of Scotland. This work was published in Sir Henry Savile's Collection of ancient English Historians (1596—1601, folio).

HOWARD, Thomas, duke of Norfolk; an eminent statesman and warrior in the reign of Henry VIII. He was born about 1473, and was grandson of the first duke of the Howard family, who lost his life at the battle of Bosworth, fighting for Richard III. His father, who was also in arms on that occasion, was restored by Henry VII. to his title and estates, which he had forfeited. The son was made a knight of the garter soon after the accession of Henry VIII., and he obtained early distinction by his talents, both as a naval and military commander. In 1513, he became high-admiral of England. The same year, he commanded, with his father, at the battle of Flodden, in which James IV., king of Scotland, was defeated and slain. For their services on this occasion, the father was made duke of Norfolk, and the son earl of Surrey. The latter was sent to Ireland as lord-lieutenant, in 1521, where he suppressed a dangerous insurrection under O'Neal. His father dying in 1524, he succeeded to the dukedom. He was afterwards a leading member of the king's council, and was considered as the head of the Roman Catholic party, though he acted with so much prudence as to retain the favour of his capricious sovereign till near the close of his long reign. In 1536, he was employed against the Catholic insurgents in the north of England, and, in 1542, against the Scots. In 1544, he went to France with the king, in a hostile expedition, and commanded at the siege of Montreuil. All his services could not secure him from the suspicious jealousy of Henry, who, on slight grounds, had condemned him to suffer the death of a traitor on the 29th of January, 1547. The king's death the preceding night procured him a respite; but he was detained a prisoner in the Tower during the reign of Edward VI. He was released and reinstated in his rank and property on the accession of queen Mary; and he sat, as high-steward, on the trial of the duke of Northumberland. He died in August, 1554.

HOWARD, Henry, earl of Surrey, eldest son of the preceding, an accomplished nobleman, and the best English poet of his age. His birth is dated by some writers in 1515, and by others in 1520,

He was placed at cardinal Wolsey's college at Oxford, now Christ-church, where he studied polite literature with great success. He then made the tour of Europe; and, in Florence he signalised his courage and romantic spirit, by publishing, in the style of a knight-errant, a challenge to all comers—Christians, Jews, Saracens, Turks, or cannibals—in defence of the surpassing beauty of his mistress, the fair Geraldine; and he was victorious in the tournament instituted by the grand duke on the occasion. In 1540, he distinguished himself at a tournament held before the court at Westminster; and not long after, he was honoured with the order of the garter. In 1542, he served under his father as lieutenant-general of the army sent against Scotland; and, in 1544, he accompanied the troops with which the king invaded France, and was field-marshal of the army before Boulogne. On the surrender of that place in 1546, he was made captain-general and commander of the garrison left for its defence; but the same year, being defeated by the French in an attempt to intercept a convoy, he was superseded in his command by Seymour, earl of Hertford. On his return to England, conscious of his former services, and smarting under what he conceived to be unmerited disgrace, he dropped some reflections on the king and council, which, being reported to his majesty by the earl's enemies, proved the cause of his ruin. He had quartered in his escutcheon the royal arms of Edward the Confessor, to which he had an hereditary right, and is said to have aspired to the hand of the princess Mary. On these and other charges of a more frivolous nature, he was, together with his father, committed to the Tower, in December, 1546, and, January 13, was tried at Guildhall, before a common jury, by whom he was obsequiously found guilty of high treason, notwithstanding he made an eloquent and skilful defence. Six days after, he suffered the sentence of the law, by decapitation, on Tower Hill. Doctor Heylin, in his Church History, says, "He was beheld, in general, by the English, as the chief ornament of the nation, highly esteemed for his chivalry, his affability, his learning, and whatsoever other graces might either make him amiable in the eyes of the people, or formidable in the sight of a jealous, impotent, and wayward prince." Lord Orford, in speaking of him, observes, "We now emerge from the twilight of learning to an almost classic author, that ornament of a boisterous, but not unpolished court, the earl of Surrey, celebrated by Drayton, Dryden, Fenton, Pope, illustrated by his own muse, and lamented for his unhappy death; a man, as Sir Walter Raleigh says, no less valiant than learned, and of excellent hopes." His works consist of Songs and Sonnets (in a collection published in London, in 1557, of which there were several reprints in the sixteenth century); the second and fourth books of Virgil's Æneis, translated into blank verse (London, 1557, 12mo); a translation of Ecclesiastes, and some of the Psalms; Satires on the Citizens of London; a translation from Boccaccio; and some smaller pieces. The entire works of Henry Howard, earl of Surrey, and those of Sir Thomas Wyatt, were published, with notes and memoirs, by Doctor Nott (2 vols. 4to, 1816.)

HOWARD, Charles, earl of Nottingham; a distinguished naval commander in the reign of queen Elisabeth. He was the son of William lord Howard of Effingham, and grandson of the second duke of Norfolk. He was born in 1536, and, while a youth, served in several expeditions under his father, who was lord high admiral. In 1559, he went on an embassy to France, and he subsequently acted as general of the horse, in the army sent against the rebel earls of Northumberland and Westmoreland. In 1573, he succeeded to his father's title, and to the office of lord chamberlain, and was made a knight of the garter. But the principal occasion on which this nobleman signalised himself, was in the defeat of the famous Spanish armada, in 1588, when he was commander-in-chief of the English fleet. In 1596, he had the command of the naval force sent against Cadiz, while the earl of Essex led the military branch of the expedition. The following year, he was created earl of Nottingham, and also made chief justice in eyre, south of the Trent. His latest public service of importance in Elisabeth's reign was the suppression of the ill-concerted rebellion of the unfortunate earl of Essex, whom he took into custody. James I. continued him in his employments, and availed himself of his services in an embassy to Spain, and on other occasions. He died in 1624.

HOWARD, Thomas, earl of Arundel, an English nobleman, distinguished as a patron of the fine arts, was earl-marshal in the early part of the reign of Charles I., and was employed in several foreign embassies by that prince and his father. In the early part of the reign of Charles I. he sent agents into Greece and Italy, to collect for him, at a vast expense, whatever was curious and valuable of the works of ancient artists, which had escaped destruction. His museum of antiquities was divided at his death. Henry, sixth duke of Norfolk, about the year 1668, presented to the university of Oxford a considerable part, including the celebrated Parian Chronicle, which, with the other ancient inscribed stones accompanying it, have been termed the *Arundelian marbles*, (q. v.) Lord Arundel died at Padua, in 1646.

HOWARD, Frederic, earl of Carlisle, was the eldest son of Henry the fourth earl, by his second wife, Isabella, daughter of William fourth lord Byron. He was born May 28, 1748, and succeeded to the family titles and estates September 3, 1758. At the expiration of his minority, he took his seat in the house of peers, and was afterwards selected as one of the commissioners despatched, in 1778, to America, with a view of healing the breach between the mother country and the colonies. In 1780, he was appointed viceroy of Ireland, which office he retained for a period of two years, when the sudden dissolution of the Rockingham administration recalled him to his native country. From this period, lord Carlisle continued in opposition till the breaking out of the French revolution, when he ranged himself on the side of the ministers. In 1773, he published a quarto volume, containing miscellaneous pieces, original and translated. In 1801, appeared a complete edition of the Tragedies and Poems of Frederic earl of Carlisle, K.G., &c. The earl of Carlisle was a liberal patron of the fine arts, and had made a valuable collection of paintings at his seat, Castle Howard, where he died, in his seventy-eighth year, September 4, 1825.

HOWARD, John, the celebrated philanthropist; was born at Enfield or Hackney, in 1726. His father dying while he was young, he was bound apprentice to a wholesale grocer in the metropolis; but on the approach of his majority, he purchased the remaining term of his indentures, and indulged his taste by making a tour in France and Italy. Returning home in a state of ill health, he took lodgings at Stoke Newington; and, on his recovery, he married his landlady, an elderly widow, out of gratitude for her care in nursing him. She died in 1756, about three years after the marriage, and Mr Howard commenced a voyage to Lisbon to view the effects of the recent earthquake. The vessel in which he embarked being captured, he was consigned to a French prison. The hardships he suffered

and witnessed previously to his release first roused his attention to the subject of his future researches. When he reached England, he was induced to lay before the commissioners of the sick and hurt office the information he had gained, and his communication was well received. At Cardington, where he then resided, he indulged the benevolence of his disposition in building cottages for the peasantry, establishing schools for gratuitous instruction, and other plans for the encouragement of industry among the lower orders. Horticulture at this time was his principal amusement; and he also made some experimental researches in natural philosophy, and communicated them to the Royal Society, of which he was a member. In 1773, he served in the office of sheriff for the county of Bedford. In applying to the necessary duties of this station, the subject of prison discipline came under his notice; and, finding that many abuses existed in the management of jails, he resolved to devote his time to the investigation of the means of correcting them. With this view he visited most of the English county jails and houses of correction, and in March, 1774, he laid the result of his inquiries before the house of commons, for which he received a vote of thanks. In 1775 and 1776, he visited many of the continental prisons, as well as those of Scotland and Ireland; and the substance of his investigations appeared in a work he published in 1777, entitled the State of the Prisons in England and Wales, with Preliminary observations, and an Account of some Foreign Prisons (4to). In 1778, he repeated his visit to the continent, and extended his tour into Italy. After his return from this journey, he made a fresh survey of the prisons throughout the British empire, to which he added an examination of the public hospitals; and the result of his inquiries was communicated to the public in an Appendix to the former work, published in 1780 (4to). In 1781 and 1782, he made a tour through the northern parts of Europe, including Denmark, Sweden, Russia, and Poland. In 1783, he visited Spain and Portugal; and, having again surveyed the prisons of his own country, he printed in 1784, a second Appendix, comprising the additional information he had obtained; and at the same time was published a complete edition of his State of the Prisons, with all the supplementary matter.

A new subject now engaged his attention, namely, the management of lazarettos, and the means of preventing the communication of the plague and other contagious diseases. In order to obtain accurate information, he went to Smyrna, where he knew that the plague prevailed, for the purpose of proceeding to Venice, with a foul bill of health, that he might be subjected to all the regulations of quarantine in the lazaretto, and thus become experimentally acquainted with them. On his return home, through Vienna, he was introduced to the emperor, Joseph II., whose curiosity was excited by the fame of Howard's philanthropic investigations. In 1789, he published an Account of the principal Lazarettos in Europe, with various papers relative to the Plague, together with farther Observations on some Foreign Prisons and Hospitals, with additional Remarks on the Present State of those of Great Britain and Ireland (4to). At the end of this work he announced an intention of revisiting Russia and European Turkey, and extending his travels into Asia. In pursuance of this plan, he set off from London in the summer of 1789, and proceeded through Germany to Petersburg and Moscow. The greatest respect was everywhere paid to his exalted merit, and he seemed to be regarded as the general censor of the discipline and management of prisons and hospitals, which were thrown open for his inspection as a friendly monitor and public benefactor. He had taken up his residence at the town of Cherson, a Russian settlement on the Black sea. A malignant fever prevailed there, and, having been prompted by humanity to visit a patient labouring under the contagious disease, he received the infection, and died in consequence, Jan. 20, 1790. He was interred in the vicinity of Cherson, and every respect was shown to his memory by the Russian authorities. A cenotaph is erected in St. Paul's cathedral, exhibiting his statue in a Roman garb, executed by Bacon.

The eulogium pronounced on Howard, by Edmund Burke, in his speech at Bristol, previously to the election, in 1780, must not be omitted: "I cannot," said the orator, "name this gentleman without remarking that his labours and writings have done much to open the eyes and hearts of mankind. He has visited all Europe, not to survey the sumptuousness of palaces, or the stateliness of temples; not to make accurate measurements of the remains of ancient grandeur, nor to form a scale of the curiosity of modern art; not to collect medals, or collate manuscripts;—but to dive into the depths of dungeons; to plunge into the infection of hospitals; to survey the mansions of sorrow and pain; to take the gauge and dimensions of misery, depression and contempt; to remember the forgotten, to attend to the neglected, to visit the forsaken, and to compare and collate the distresses of all men in all countries. His plan is original; and it is as full of genius as it is of humanity. It was a voyage of discovery; a circumnavigation of charity. Already the benefit of his labour is felt, more or less, in every country; I hope he will anticipate his final reward, by seeing all its effects fully realised in his own. He will receive, not by retail, but in gross, the reward of those who visit the prisoner; and he has so forestalled and monopolised this branch of charity, that there will be, I trust, little room to merit by such acts of benevolence hereafter."

HOWE, Richard, earl, a celebrated English admiral, was the third son of Emanuel, second viscount Howe, and was born in 1725. After having received the rudiments of a liberal education at Eton, his strong predilection for the sea induced his father to place him, at the age of fourteen, in quality of a midshipman, on board the Severn, in which ship he sailed with Anson for the Pacific, and continued going through the usual gradations of the service under that admiral, till 1745, when, though only twenty years of age, he obtained the command of the Baltimore sloop of war. After having distinguished himself on many occasions, he sailed, as commander-in-chief, to the Mediterranean, in 1770, with the rank of rear-admiral of the blue, from which step he proceeded to those of rear-admiral of the white, and vice-admiral of the blue. On the breaking out of the war with France, lord Howe sailed for the coast of America, with a squadron destined to act against D'Estaign, who commanded the French force in that quarter, and on his return was raised, in 1782, to an English earldom. In the course of the same year, he sailed to the relief of Gibraltar, which he effected in spite of the combined fleets of the enemy. In 1783 he accepted the post of first lord of the admiralty, which, with a partial intermission, he continued to hold until 1793, when, on the breaking out of the war with France, he took the command of the British fleet, and, bringing the enemy to an action on the first of June, 1794, he obtained over them a decisive victory. The rank of general of marines, and the vacant garter, both conferred on this successful commander in the course of the next year, were the consummation of his honours. In 1797, lord Howe exerted himself with great success to quell the

mutiny among the seamen at Portsmouth. His death took place Aug. 5, 1799.

HOWE, Sir William, brother of the preceding, succeeded general Gage in the chief command of the British forces in America, having landed at Boston with generals Clinton and Burgoyne, in May, 1775. General Howe commanded at the attack on Bunker hill, was besieged in Boston during the next winter, evacuated that town in the ensuing spring, and retired to Halifax. In June, 1776, he arrived at Staten Island, where he was joined by his brother, lord Howe. Here the brothers informed congress that they had received full powers to grant pardon to all the rebels who should return to their obedience; but the commissioners appointed by that body considered both the form and substance of the propositions too objectionable to deserve attention. August 27, general Howe defeated the Americans on Long Island, and, September 15, took possession of New York. After the campaign in the Jerseys, he set sail from New York, and entered Chesapeake bay, August 24. September 23, having previously secured the command of the Schuylkill; he crossed it with his army, advanced to Germantown on the 26th, and, on the 27th, lord Cornwallis entered Philadelphia. Oct. 4, general Howe repelled the attack of the Americans at Germantown. In May, 1778, he was succeeded in the command by Clinton. He died in 1814.

HOWEL the Good, or Hywel Dda, a Cambrian prince, famous as a legislator in the tenth century, in 926 went to Rome to obtain information preparatory to the compilation of a code of laws for the Welsh. On the return of Howel, a kind of national convention was assembled of the heads of tribes, and learned clergymen and laymen, by whose co-operation a collection of laws was prepared, founded on the laws of Dunwallo Molmutius, an ancient British sovereign; and this code was constitutionally established throughout the territories of Wales. Howel went again to Rome in 930, to procure the farther sanction of learned jurists for the confirmation of his laws, which were long held in great veneration among the inhabitants of Wales. These institutes are still extant, and may be found among the *Leges Walliæ ecclesiasticæ et civiles, Hoeli Boni et aliorum Walliæ Principum*, published by Wotton, in 1730. "The laws and ordinances of Howel Dda," says Daines Barrington, "are the most regular of any extant, and have been wonderfully preserved, considering their antiquity; but though there are many provisions in them dictated by wisdom and sound policy, there are some which it is impossible to peruse without a smile, and others which should not be passed over without censure."

HOWITZER; a piece of ordnance which ranks midway between the cannon and mortar. It is mounted upon a carriage, and throws its grenades in a curve approaching a horizontal line (at the highest 16°). The arrangement of the chamber, and the extensive range of the piece, resemble those of the mortar. The length of the tube amounts to five seventh times the caliber. The howitzer is used to throw grenades (q. v.), case-shot, and sometimes fire-balls. Its principal object, however, is the discharge of grenades. Troops upon an open plain, who are secure from the fire of cannon, can be reached and injured by the discharge and bursting of grenades. By the same means villages and towns can be set on fire, and garrisons dislodged from their works. Howitzers are of German invention, and bore, originally, the name of *Haufenitz*, when they were loaded with old nails, broken glass, &c. From thence is derived the French *obusier*, and the English *howitzer*.

H. R. R.; abbreviation for *Heiliges Römisches Reich* (holy Roman empire), met with in very many manuscripts, diplomas, and books printed during the existence of the German empire, which, as is well known, was, in theory, the continuation of the old Roman empire.

HUARTE, Juan; the only Spanish philosopher who is much distinguished beyond the limits of his own country. Nothing is known of his life, except that from the title-page of his works, it appears that he was born at San Juan del Pie del Puerto, in Navarre. Some have therefore called him a Frenchman, but, as Ferdinand the Catholic had taken possession of Navarre, and driven out king Jean d'Albert, Huarte may have been the son of Spaniards who had settled there. He is known to have been living about 1580, and to have been dead in 1590. In the preface to his work, he says, that no one ought to write before the age of thirty-one, and every prudent man will lay down his pen when fifty years old. He was a physician by profession. His work is entitled *Examen de Ingenios para las Ciencias*, &c., or an examination of such geniuses as are born fit for acquiring the sciences, "wherein, by marvellous and useful secrets, drawn from true philosophy, both natural and divine, are shown the gifts and different abilities found in man, and for what kind of study the genius of every man is adapted, in such a manner, that whoever shall read this book attentively will discover the properties of his own genius, and be able to make choice of that science in which he will make the greatest improvement." This work has been translated into many languages; into English by Carew and Bellamy, under the title of the Tryal of Wits; into German by Lessing, under the title of *Prufung der Kopfe*. Respecting the many paradoxes of the author, Lessing says, A good horse strikes out the brightest sparks when he stumbles. The work is full of practical wisdom, and continues to be in great esteem with the Spaniards; and don Vicente de los Rios, the author of the *Vida de Miguel de Cervantes*, calls Huarte *nuestro sabio Filosofo*. Huarte has been reproached for having published, as genuine, a spurious letter of Lentulus, the proconsul, from Jerusalem, in which a description of the Saviour's person is given.

HUBER; a name of many distinguished authors, including,—

1. John James Huber, born 1707, in Switzerland, died in 1778, professor of anatomy at Cassel.

2. Ulrich Huber, born at Dockum, in Friesland, 1636, died 1694, known by his work *De Jure Civitatis* (Leyden, 1667, 4to). He was professor of law at Franeker.

3. His son, Zacharias Huber, born in 1669, died 1731, also known as a jurist.

4. Mary Huber, an ingenious writer, was born 1694, at Geneva, and died 1759, at Lyons. She was a deistical writer, and her principal work, *Lettres sur la Religion de l'Homme* (1739 and 1754), was translated into English and German.

5. John James Huber, born 1668, died 1748, a painter whom Fuesli, in his History of Swiss Painters, calls the *Swiss Tintoretto*.

6. Michael Huber, born 1727, in Bavaria, died 1804, was professor of the French language in Leipsic, and translated several German works into French, which did much towards making the two nations better acquainted with each other.

7. Louis Ferdinand Huber, born at Paris, 1764, died 1804, son of the preceding. His *Sammtliche Werke seit* 1802 were published at Tubingen (1807). He edited several journals.

8. Therese Huber, born 1764, at Gottingen, daughter of the celebrated philologist Heyne, was married to Louis Ferdinand Huber. She is a popular German author. She wrote several novels, dur-

ing her husband's life, which were published under his name. She also edited, for some time, the well known *Morgenblatt*.

9. Francis Huber; a naturalist, born 1750, at Geneva. Having lost his way in a winter night, he was so blinded with snow and pinched with cold as to be deprived irrecoverably of his sight, which was previously weak, notwithstanding which the lady whom he loved gave him her hand; and her aid, with that of a young man named Burnens, who was employed in his service as a reader and amanuensis, enabled him to make such great progress in his studies. In 1796 appeared, in the form of letters, his *Nouvelles Observations sur les Abeilles* (second edition, Paris, 1814; English, London, 1806), in which he explains the manner of the queen-bee's impregnation, and demonstrates that this act takes place in the air by coition with the drones. In his *Mémoire sur l'Influence de l'Air et de diverses Substances gazeuses dans la Germination de différentes Plantes*, he relates the observations which he made in company with Sennebier. Huber was also intimately connected with Charles Bonstetten. His assistant Burnens having become one of the magistrates of his district, Huber instructed his own son in natural science. This son afterwards made some observations on ants, which have been printed under the title *Essai sur l'Histoire et les Mœurs des Fourmis Indigénes* (Paris, 1806, one volume), translated into English (London, 1820).

HUBERT, St; a saint of the Roman Catholic church, the patron of huntsmen. The legend says that he was a son of Bertrand, duke of Guienne, at the court of Pepin d'Heristal, and a keen hunter; and that being once engaged in the chase, on Good Friday, in the forest of Ardennes, a stag appeared to him, having a shining crucifix between its antlers, and he heard a warning voice. He was converted, entered the church, and became a zealous disciple of bishop Lambert, whom he succeeded as bishop of Maestricht and Liege. He worked many miracles, and is said to have died in 727 or 730. His body was placed in the Benedictine convent of Andain, in the Ardennes, which received the name *St Hubert's of Ardennes*. It is celebrated for St Hubert's key, given him by St Peter, which cures the hydrophobia, &c. November 3d is the day of the saint, and was formerly celebrated at many courts by a solemn chase.

HUBERT, Order of St; the oldest and highest order of Bavaria, founded in 1444; often re-formed —the last time in 1808. It consists of one class of twelve members, who must be natives, and of ancient noble families.

HUBERTSBERG, a Saxon hunting seat in the circle of Leipsic, formerly very splendid, was destroyed in the seven years' war, and is now used as a corn magasine. In this castle, the peace of Hubertsberg, which put an end to the seven years' war, was signed between Prussia, Austria, and Saxony, February 15, 1763. Peace had been concluded, at Paris, between Great Britain, France, Spain, and Portugal, February 10, 1763. The peace of Hubertsberg placed the Prussian monarchy among the first powers in Europe. The empress queen Maria Theresa renounced all claims to the provinces of Silesia and Glatz, which had been ceded to Prussia by the peace of Breslau and Berlin, in 1742. Frederic II. restored to the elector of Saxony, who was king of Poland, his electorate. The peace of Dresden (1745) was confirmed, and the German empire was expressly included in the treaty of Hubertsberg.

HUBNER, John; a German scholar who rendered important services in geography. He was born in 1668, in Tyrgau, taught history and geography at the university of Leipsic, became rector of a gymnasium at Hamburg, and died 1731. His Short Questions from Ancient and Modern Geography went through thirty-six editions during his life, and was translated into several languages. He invented the plan of colouring maps methodically. He published many works, among others *Das Reale Staats-, Zeitungs- und Conversations-lexicon*. His son revised, continued, and edited anew several of his works; for instance, the *Museum geographicum*—an examination of the best maps (Hamb. 1746).

HUDDERSFIELD, a town in the West Riding of Yorkshire, situated on the banks of the river Colne, 16 miles west of Leeds, and 189 north-west of London. The inhabitants are chiefly employed in the manufacture of woollens. By the reform bill, Huddersfield was erected into a borough, and returns one member to parliament. Population in 1831, 19,035.

HUDSON, Henry. This distinguished English naval discoverer sailed from London in the year 1607, in a small vessel, for the purpose of discovering a north-east passage to China and Japan, with a crew of only ten men and a boy besides himself, and, proceeding beyond the 80th degree of latitude, returned to England in September. In a second voyage, the next year, he landed at Nova Zembla, but could proceed no farther eastward. In 1609, he undertook a third voyage, under the patronage of the Dutch East India company. Being unsuccessful in his attempts to find a north-east passage, he sailed for Davis's straits, but struck the continent of America in 44° N. lat., and, holding a southerly course, discovered the mouth of the Hudson, which he ascended about fifty leagues in a boat. His last voyage was undertaken in 1610. He sailed, April 17, in a bark named the Discovery, with a crew of twenty-three men, and came within sight of Greenland, June 4. Proceeding westward, he reached, in latitude 60°, the strait bearing his name. Through this he advanced along the coast of Labrador, to which he gave the name of *Nova Britannia*, until it issued into the vast bay, which is also called after him. He resolved to winter in the most southern part of it, and the crew drew up in a small creek, and endeavoured to sustain the severity of that dismal climate, in which attempt they endured extreme privations. Hudson, however, fitted up his shallop for farther discoveries; but, not being able to establish any communication with the natives, or to revictual his ship, with tears in his eyes he distributed his little remaining bread to his men, and prepared to return. Having a dissatisfied and mutinous crew, he imprudently uttered some threats of setting some of them on shore; upon which a body of them entered his cabin at night, tied his arms behind him, and put him in his own shallop, at the west end of the straits, with his son, John Hudson, and seven of the most infirm of the crew. They were then turned adrift, and were never more heard of. A small part of the crew, after enduring incredible hardships, arrived at Plymouth, in September, 1611. An account of his last voyage is contained in the 4th volume of Purchas's Pilgrimage. His voyage in the service of the Dutch is contained in the collections published by that nation.

HUDSON'S BAY; a large bay of North America, situated north of Canada, reaching in its whole extent from lon. 78° to lon. 95° W., and from lat. 52° to lat. 68° N., in which are included the different gulfs and bays, such as James's bay, Welcome sea, &c., which are no otherwise to be distinguished than as being narrower. Its superficial area is about 296,000 square miles; its length from north to south being 1000 miles, and its breadth 800. It is navigable only a few months in the year, being completely frozen over or obstructed by drift ice

ring the other months. It is full of sand-banks, fs, and islands. The shores are rocky and steep, climate is extremely rigorous, and the whole pearance of the surrounding country desolate and ghtful. The bay contains few fish, though the luga or white whale is taken. Shellfish are very rce. The Hudson's bay company have several tlements and forts, especially on the west coast, ere their agents carry on a traffic with the Indians, beaver-skins and other valuable furs.

HUDSON'S STRAIT lies north of Labrador, and nnects Hudson's bay with the Atlantic ocean.

HUDSON'S BAY COMPANY. See *Fur Trade.*

HUDSON or NORTH RIVER; a river of New ork, which rises in a mountainous country west of ke Champlain, in the counties of Essex and Mont- omery, about lat. 44° N., and communicates with e Atlantic, below New York city. It is navigable r the largest ships to Hudson, and for sloops to roy. The tide flows up as far as Troy. It is markably straight for 200 miles, and is one of the nest rivers in America, and is a channel for an tensive navigation, particularly between the cities f New York and Albany, by means of steamboats nd sloops. There are upon its banks a number of andsome and flourishing towns; and in passing up he river through the Highlands, there is exhibited fine and picturesque scenery. See *Highlands of the Hudson.*

Distances.

	Miles.	*Whole Dist.*
From its source to Sandy hill, about	100	100
Waterford,	42	142
Troy,	4	146
Albany,	6	152
Hudson,	30	182
Poughkeepsie,	55	237
Newburgh,	10	247
New York,	65	312
The Narrows,	12	324

t is connected with lake Champlain by the Cham- lain canal, with lake Erie by the Erie canal, with he Delaware river by the Hudson and Delaware anal and the Morris canal. See *Canals.*

HUDSON CITY, the capital of Columbia county, nd a port of entry, in New York, on the east bank f Hudson river, twenty-eight miles south of Albany, 17 north of New York city, in lon. 73° 46′ W., and at. 42° 14′ N. Population in 1830, 5392. It was ounded in 1784; for several years it was in a very lourishing state, and afterwards its prosperity was hecked. It is pleasantly situated, and regularly aid out; the streets intersect each other at right ngles. The city is tolerably well built, and is con- iderable both for trade and manufactures. Claverack reek, which flows on the eastern side of the town, nd Abram's, or Factory creek, on the northern side, ford good seats for various mills and manufactories. he whale fishery has lately been undertaken from this lace. Three vessels (1019 tons) are engaged in it.

HUER. See *Iceland.*

HUET, Peter Daniel, a celebrated critic and lassical scholar of the seventeenth and eighteenth nturies, was born in Caen in Normandy, in 1630, nd was educated in the Jesuit's college at Caen. fter gaining a general knowledge of literature, he ent to Paris, where he indulged his passion for udy by reading all the books he could procure, and ultivating the acquaintance of the most eminent holars of his time. In 1652, he accompanied ochart on a visit to the court of Christina, queen of weden, of which journey he wrote an amusing arrative in Latin verse. In 1661, he published a reatise on translation, in the form of a Latin dialogue, ntitled *De Interpretatione;* and in 1664, a collection f Greek and Latin poems. An edition of Origen's ommentaries on the Scriptures followed in 1667; a tract, by him, on the Origin of Romances, was prefixed to the Zayde of madame Lafayette. He was subsequently appointed preceptor to the dauphin, in conjunction with Bossuet. While he filled this office, he wrote his Defence of Christianity, published in 1679, under the title of *Demonstratio Evangelica,* which displays his vast erudition. At this time also he undertook, at the earnest recommendation of the duke de Montausier, governor to the dauphin, the plan of publishing all the Latin classics, with the ample illustrations which have made what are called the *Delphin editions* so well known and generally esteemed throughout Europe. The plan was executed under the direction of Huet, in less than twenty years, to the extent of sixty-two volumes, Lucan being the only ancient Roman author of importance who was omitted, the freedom of his political principles rendering his works objectionable to the French despot Louis XIV. Various Jesuits and other learned persons were engaged by Huet as editors of the different classics; one alone, namely, the *Astronomicon* of Manlius, was edited by himself. After the completion of his tutorship, having taken holy orders, he was made abbot of Aulnai, and subsequently nominated bishop of Soissons, which see he exchanged for that of Avranches. But after holding the episcopal office some time, he became so tired of the troublesome duties attached to it, that he abdicated the bishopric, contenting himself with the abbacy of Fontenai. He died January 26, 1721. Besides the works already mentioned, he wrote *Histoire du Commerce et de la Navigation des Anciens; Origines de Caen;* and memoirs of his own life in Latin, besides other pieces of less importance. A translation of the memoirs, with copious notes, was published in 1810 (2 vols., 8vo), by doctor John Aikin.

HUETHUETLAPALLAN. In the province of Ciudad Real del Chiapa, in Guatemala, about four leagues from the town of Palenque, lie the ruins of this old Mexican city. Don Antonio del Rio, a Spanish captain, examined it in 1787, at the command of the viceroy of Guatemala. In 1794, it was explored by doctor Cabrera; but the reports respecting it remained, till 1822, in the archives of New Guatemala, when they came accidentally into the hands of an Englishman, Mr Berthoud, who published the account contained in them, in London, with seventeen lithographic plates, representing the antiquities found there. These remarkable ruins, which the people of the country call by the above name, extend about sixteen or seventeen miles in length, and perhaps two to four miles in breadth, along the summit and declivity of a chain of hills. The spot is covered by a high wood. A group of fourteen large buildings forms the chief remains of the ancient city. They are furnished with pillars and architectural ornaments, and a subterraneous aqueduct of stone is to be seen. These ruins have a wonderful resemblance to the relics of Egyptian and Nubian antiquity. A further argument for a connexion between America and Egypt has been derived from a Mexican manuscript on deer-skin, published by Seyffarth at Rome, in which the gods of Egypt, Isis, Osiris, Horus, &c., are said to be distinctly indicated; likewise from the existence of pyramids in Mexico, and from the old traditions of the Mexicans.

HUGH CAPET; son of Hugh the Great, a powerful duke in France; his capital was Paris. The last Carlovingians had been stripped of almost all their possessions, and at the same time of their power, by their restless vassals. One only still remained —Charles, duke of Lower Lorraine. He was passed over in the election of king, and Hugh, renowned for his boldness and sagacity, possessed himself (987) of the throne, to which he had no claim, by fraud and force. The duke of Lorraine endeavoured, in-

deed, to enforce his claim by arms, but he was taken prisoner by Hugh, and died 992. Thus Hugh founded the third race of French kings, in three principal lines: the Capets, who filled the throne from 987 to 1328, the line of Valois to 1589, and that of Bourbon till Louis XVI. (1793), occupied the throne 800 years, and, in 1814, after the abdication of Napoleon, returned to it in the person of Louis XVIII. In 1830, the elder line was deposed, and the line of Orleans called to the throne. The family estates of Hugh were converted into royal domains, except that the duchy of Burgundy passed over to his brothers, Otho and Henry, and to their successors. Hugh endeavoured to confirm his power by courage and prudence, without taking vengeance on his earlier enemies. According to some, he obtained the name of *Capet* (q. v.) from his large head; according to others, from his sagacity; others consider it his family name. Hugh died 996. He made Paris the capital of the kingdom.

HUGUENOTS. This term, which was applied to the Protestants in France in contempt, is of uncertain origin. In public documents, they were styled *Ceux de la religion prétendue réformée*, or *Religionnaires*. The principles of Luther and Zwinglius had gained an entrance into France, during the reign of Francis I. (1515—47). The doctrines of Calvin spread still more widely, although Francis endeavoured to suppress them, by prohibiting Calvinistic books, and by penal laws, and, in some instances, by capital punishments. Under Henry II., the successor of Francis, these doctrines made greater progress, in proportion as they were more violently persecuted. The opinions and influence of queen Margaret of Navarre had no small share in this extension, and the parties at court contributed much to the bloody persecution of the Protestants. One party wished to enrich themselves by the estates of the heretics, who were executed or banished, and the other to gain the favour of the people by their punishment. The parties of the Bourbons and of the five princes of Guise, under the government of the weak Francis II., made use of this religious dispute, in order to advance their own political ends. The Bourbons belonged to the Protestant party; and the Guises, in order to weaken, and, if possible, to destroy their rivals, continued the persecution of the heretics with fanatical fury. In every parliament, there was a chamber established to examine and punish the Protestants, called by the people the *burning chamber (chambre ardente)*, because all convicted of heresy were burnt. The estates of those who fled were sold, and their children who remained behind were exposed to the greatest sufferings. But notwithstanding this persecution, the Protestants would not have thought of a rebellion, had not a prince of the blood encouraged them to it, by the promise of his assistance. In 1560, the conspiracy began. The discontented inquired of lawyers and theologians, whether they could, with a good conscience, take arms against the Guises. The Protestant divines in Germany declared it proper to resist the tyranny of the Guises, if it were under the guidance and direction of a prince of the blood, and with the approbation of the majority in the states. The malcontents having consulted upon the choice of a leader, all voices decided in favour of the brave prince Louis of Condé, who had conducted the whole affair, and gladly seized the opportunity to make himself formidable by the support of the Huguenots. The name of the leader was, however, kept secret, and a Protestant gentleman of Perigord, John du Barry, *seigneur* of Renaudie, was appointed his deputy. It was determined, that a number of the Calvinists should appear on an appointed day, before the king at Blois, to present a petition for the free exercise of their religion; and, in case this request was denied, as it was foreseen it would be, a chosen band of armed Protestants were to make themselves masters of the city of Blois, seize the Guises, and compel the king to name the prince of Condé regent of the realm. This plot was betrayed. The court left Blois, the military were summoned, and the greatest part of the Protestants, who had armed themselves to carry the conspiracy into effect, were executed or imprisoned. Few of those who fell into the power of the court, found mercy; and about 1500 expiated their offence with their lives. The Guises now desired to establish the inquisition, but the vice-chancellor, Michael de l'Hopital, in order to avoid the greater evil, advised that all inquiries into the crime of heresy should be committed to the bishops, and that parliament should be prohibited from exercising any jurisdiction in matters of faith; and it was so ordered by the edict of Romorantin (1560).

In the reign of the next king, Charles IX., during whose minority the queen mother, Catharine de Medici, was at the head of the government, the contest between the parties became yet more violent, and their contending interests were more and more used for a pretence to accomplish unholy designs; and it was only from motives of policy that the free exercise of their religion was secured to the Protestants, by the queen, in order to preserve the balance between the parties, by the edict of January (1562), so called. The Protestants thereby gained new courage; but their adversaries, dissatisfied with this ordinance, and regardless of decency, disturbed the Huguenots in their religious services. Bloody scenes were the result, and the massacre of Vassy (1562) was the immediate cause of the first civil war. These religious wars desolated France almost to the end of the sixteenth century, and were only interrupted by occasional truces. The suffering which these wars brought upon the people, is to be ascribed to the instability and bad policy of queen Catharine de Medici, who exerted the most decided influence, not only over the feeble Charles IX., but likewise over the contemptible Henry III. She wished, in fact, for the extirpation of the Huguenots, and it was merely her intriguing policy, which induced her, much to the vexation of the opposite party, to favour the Protestants from time to time, and to grant them freedom of conscience. Always wavering between the two parties, she flattered herself with the expectation of holding them in check during peace, or of destroying the one by the other in war. Both parties were, therefore, generally dissatisfied with the court, and followed their own leaders. A wild fanaticism seised the people. Heated with passion and religious hatred, they endeavoured only to injure each other; and, with the exception of some party leaders, who made use of this excitement for the accomplishment of their own ambitious schemes, their only object was to acquire the superiority for their own creed, by fire and sword. The horrible effect of Catharine's policy was the massacre of St Bartholomew's (1572), of which she and her son, her pupil in dissimulation, had laid the plan with the confidants.

Shortly before the line of kings of the house of Valois had become extinct with Henry III., and the way was opened for the house of Bourbon, the head of which was the Protestant Henry king of Navarre, the relations of the two parties became still more involved. The feeble king found himself compelled to unite with the king of Navarre against the common enemy, as the intrigues of the ambitious Guises, who openly aimed at the throne, had excited the people against him to such a degree, that he was on the point of losing the crown. After the assassination of

Henry III., the king of Navarre was obliged to maintain a severe struggle for the vacant throne; and not until he had, by the advice of Sully, embraced the Catholic religion (1593), did he enjoy quiet possession of the kingdom. Five years afterwards, he secured to the Huguenots their civil rights, by the edict of Nantes, which confirmed to them the free exercise of their religion, and gave them equal claims with the Catholics to all offices and dignities. They were also left in possession of the fortresses which had been ceded to them for their security. This edict afforded them the means of forming a kind of republic within the kingdom, and such a powerful party, which had for a long time been obliged to be distrustful of the government, would always offer to the restless nobility a rallying point and a prospect of assistance.

Louis XIII., the weak and bigoted son of the liberal and magnanimous Henry IV., allowed himself to be influenced by his ambitious favourite, De Luines, and his confessor, against the Huguenots, who were able to offer a powerful resistance, as they had become very numerous in many provinces. But in the first religious war, which broke out in 1621, the Protestants lost the greatest part of their strong places, through the faithlessness or cowardice of the governors. Some of these, however, and among the rest Rochelle, remained to them, when, disunited among themselves and weary of war, they concluded a peace. Rochelle enabled them to keep up a connexion with England; and Richelieu, who aimed to make the royal power, which he exercised under the name of Louis, absolute, used every means to deprive the Protestants of this bulwark of their liberty, and thus destroy every remnant of a league which recalled the times when civil factions had so often weakened the royal power. Rochelle fell into the hands of Louis, after an obstinate defence, in 1629; the Huguenots were obliged to surrender all their strong holds, and were thus left entirely at the mercy of the king. Freedom of conscience was indeed promised them, and Richelieu and his successor Masarin did not disturb them in the enjoyment of it; but when Louis XIV. abandoned his voluptuous life for an affected devotion, he was led by his confessors and madame de Maintenon, to persecute the Protestants, for the purpose of bringing them back to the bosom of the true church. In 1681, he deprived them of most of their civil rights, and, on the death of Colbert, who had generally opposed violent measures, he followed altogether the advice of his counsellors, who were in favour of persecution—his minister of war, Louvois, the chancellor Le Tellier, and the Jesuit La Chaise, his father confessor. Bodies of dragoons were sent into the southern provinces, where the Protestants were most numerous, to compel the unhappy inhabitants to abjure their faith. To prevent the emigration of the Protestants, the frontiers were guarded with the utmost vigilance; yet more than 500,000 Huguenots fled to Switzerland, Germany, Holland, and England. Many who could not escape, were obliged to renounce their faith. Lists of Protestants, who, it was pretended, had been converted, were sent to the king, and it was very easy for his flattering counsellors to persuade him that he had gained honour, by having almost extirpated the Protestants in France. Under this erroneous supposition, he revoked the edict of Nantes, October 22, 1685. But he had still more than half a million of Protestant subjects, and this unjust and unwise revocation robbed France of a great number of useful and rich inhabitants, whose industry, wealth, and skill found a welcome reception in foreign countries. But quiet was by no means restored in France. In the provinces between the Rhone and Garonne, the Protestants were yet very numerous, and the neighbouring mountains of Cevennes afforded them shelter. There the Camisards (q. v.) maintained war for a long time, armed for the most part with clubs alone. The contest was not altogether unlike the war of La Vendée in later times. After twenty years (1706), the government was finally obliged to come to terms with them; yet quiet was not perfectly restored. In the level country, especially at Nismes, a Protestant spirit still survived in secret; even the compassion of the Catholics was excited, and many persecutors of the Protestants became their defenders; and there were not wanting clergymen among the Huguenots who were kept concealed.

In the reign of Louis XV., new but less severe measures were adopted against the Protestants, and, in 1746, they ventured to appear publicly in Languedoc and Dauphiny. By degrees, many voices were raised in favour of religious toleration. Montesquieu led the way; but Voltaire, shocked by the unhappy fate of John Calas (q. v.), effected still more by his Essay on Toleration, in 1762. From this time Protestants were no longer disturbed; yet they did not dare to make pretensions to public offices. (See Browning's *History of the Huguenots*, London, 1829, 2 vols. 8vo.) The revolution restored them all the civil rights, and they frequently laid out their hitherto secreted treasures in the purchase of the national domains. It was not therefore strange, that, at the restoration, they appeared attached to the former government, which had granted them privileges that they were fearful of losing under the new. Although they did not offer any opposition to the new order of things, yet troubles took place, which were attended with bloodshed, at Nismes and the vicinity; but these were suppressed by the judicious measures of the government. (See *France*.)—Consult Aignan, *De l'Etat des Protestans en France* (2d edit., Paris, 1818).

HUISSIER (*French*); a kind of officers whose attendance is necessary at every judicial tribunal, from that of a justice of the peace to the court of cassation (q. v.). Their name is derived from what was originally their exclusive business, to wait at the doors (*huis*). This, however, is at present only a small part of their official duties; those who attend personally at the courts, are called *huissiers audienciers;* they answer in some respects to the sheriffs, clerks, and criers of our courts. There are other *huissiers*, who have duties corresponding somewhat to those of English justices of the peace. The English word *usher* (q. v.) is derived from *huissier*.

HULL, or KINGSTON UPON HULL; a large seaport town, in the East Riding of Yorkshire, distant from London 174 miles N. It is situated on the great inlet of the Humber, at the point where this receives the river Hull, and, from the facilities for trade which it thus acquires, has become a place of much commerce.

It appears that about the middle of the twelfth century there were two towns or villages near the confluence of the Hull and the Humber, called Wyke and Myton, the former of which was a place of so much importance, that in 1278 the abbot of the neighbouring monastery of Meaux, who was lord of the manor, procured for the town of Wyke, or Hull, as it was then styled, the grant of a market and a fair. In 1293, king Edward I. obtained, by purchase, the lordship of Myton, including the town of Wyke, the name of which he changed to Kingston, or King's Town-upon-Hull, and placed it under the government of a warden and bailiffs, constituting it also a separate and independent manor. In 1299 the town obtained a royal charter, making it a free borough, endowed with various privileges and immunities; the next year a mint for coinage was established here; and,

subsequently, great improvements were made in the public roads leading to the town, and the access to it was further facilitated by ferries across the Humber. The commerce of Hull was considerable even as early as the reign of John; and in the time of Edward I. it had so far increased in relative importance as to be inferior in the amount of its commerce only to London and Boston. When Edward III. collected a fleet, for the invasion of France, in 1359, this port contributed sixteen ships, and 466 mariners. The town was fortified with walls, towers, and a ditch, in the reign of Edward II.; and in that of his great grandson, Richard II., the fortifications were improved by Sir Michael de la Pole, a native of the town, who possessed great influence in the state at that period, and to whom this place was in some degree indebted for its subsequent prosperity. Henry VI., in the eighteenth year of his reign, confirmed the charter of his predecessors, and constituted the town, with its precincts, a distinct county, with the usual privileges of a separate jurisdiction. In 1536, Hull was taken by the Yorkshire insurgents, under Robert Aske, who opposed the ecclesiastical innovations which were then in progress, and who styled their expedition "The Pilgrimage of Grace;" but the rebellion was soon suppressed, and the leader executed. This place was the scene of another unsuccessful insurrection in 1569; and in the fifteenth, sixteenth, and seventeenth centuries, the inhabitants experienced the calamitous visitations of plague and inundation. Hull afterwards became the theatre of the opening events of the war between Charles I. and the English parliament. A depot of arms and military stores had been established here previously to the commencement of hostilities, and both parties were anxious to secure possession of a place of so much importance. The consequent attempt of the king to obtain admission into the town; the opposition of Sir John Hotham, who had been made governor by the parliament; the succeeding operations of the royalists; the vacillating conduct of the governor; his treachery and punishment, are matters of national history. A blockhouse and a citadel were built by Henry VII., on the eastern bank of the river Hull; and Charles II., in 1681, expended considerable sums of money in further improving the fortifications. Since that period, various works of importance have been carried on here, not, however, with a view to the operations of war, but for the advantage of manufactures and commerce. In 1774 an act of parliament passed for establishing public quays or wharfs in the harbour, for the better securing the revenue of the customs, and for the promotion of the trade of this seaport. By this statute the dock company was incorporated, and required to construct docks, basins, quays, sluices, and other works; and in compliance with its provisions, the old dock was formed, which extends into the town as far as Whitefriars Gate, and communicates with the Humber and the sea through the old harbour, at the upper end of which the entrance-dock is situated; this dock is 1703 feet long, 254 broad, and in extent about ten acres. The works were finished in 1778, but the lock and an entrance-basin were reconstructed in 1814. An extension of dock-room being rendered necessary by the increase of trade, new acts were procured in 1802 and 1805, authorising the Dock Company to erect additional works; and the Humber Dock was consequently commenced. This dock is 914 feet in length, 342 in breadth, and seven acres in surface. There is an entrance-basin from the Humber, with which this dock communicates by a lock at spring-tides, capable of admitting a vessel drawing twenty-six feet and a half of water; the works were completed in 1809. Under the provisions of the act last mentioned, a third dock has been constructed between the two preceding, called the Junction dock, which extends from Whitefriars Gate to Myton Gate, and at these points respectively communicates with the Old Dock and the Humber Dock, and completes a range of docks from the river Hull to the Humber, almost in the line of the old fortifications; thus dividing the ancient portion of the town from the suburbs by water on every side. The Junction Dock is 745 feet long, 407 broad, and in extent more than six acres. The bridges across the locks are constructed of cast iron, on the lifting plan, each twenty-four feet wide, and said to be of greater magnitude than any moveable bridge of earlier date. The works were begun in 1826, and finished 1829. The accommodation for shipping at this port thus consists of the old harbour of ten acres, and the three wet docks, which, with their entrance-basins, are in superficial extent more than thirty-six acres. About 250 sail may here be kept afloat, at all times of the tide, while vessels which do not enter the docks may be moored in safety along the quays or staiths in the harbour. Connected with the docks are nearly 60,000 square yards of quayage, with warehouses, bonding and timber-yards, and the requisite accommodations for lading and unlading merchandise. In 1829 there were belonging to this port 579 vessels, the burden of which altogether amounted to 72,248 tons. It has a greater share than any other British port in the whale-fishery; and its intercourse with the Baltic is very considerable. The coasting trade for coals, corn, wool, manufactured goods, &c., is great; and the inland trade exceeds that of any other English port. Various manufactures of the coarser kinds are also carried on at Hull. The town itself has within the last thirty years been greatly enlarged. Among the public buildings is the Trinity church, which is a large and beautiful structure of Gothic architecture, and of exquisite workmanship, partly built about the year 1312. The charter-house hospital was founded by Michael de la Pole, in 1384, for the support of poor pensioners; and there are, besides, seven other hospitals for the poor. The grammar school was instituted in 1436. Population in 1831, 32,958; lat. 53° 45′ N.

HUMANITIES; used in schools and colleges, to signify polite literature, or grammar, rhetoric, and poetry, including the study of the ancient classics, in opposition to philosophy and science. It is sometimes used in a narrower sense, for philology. In classical Latin, *humanitas* has the secondary sense of erudition, learning; and *studia humaniora* is used by modern writers for elegant literature, or belles-lettres. A *humanist* is he who pursues the *humaniora*.

HUMBOLDT, Frederic Henry Alexander, baron of, a distinguished traveller and naturalist, was born Sept. 14, 1769, at Berlin, studied at Gottingen, and Frankfort on the Oder, went to the commercial academy in Hamburg, and, in 1790, travelled with G. Forster and Van Geuns along the Rhine, to Holland and to England. This journey gave rise to his Observations on the Basalt on the Rhine, which was published, in 1793, at Brunswick. In 1791, he studied mining and botany at the mining school in Freyberg. (See his *Specimen Florae Fribergensis subterraneae*, Berlin, 1793.) Here his acquirements, his attractive and instructive conversation, his wit, and goodness of heart, gained him universal esteem and affection. In 1792, he was appointed assessor in the mining and smelting department, and was afterwards removed to Baireuth, as overseer of the mines in Franconia. Here he introduced many improvements, among which was the establishment of the mining school at Steben; he likewise made valuable galvanic experiments, the results of which were

published in Berlin, 1796, in two volumes. But in 1795, he voluntarily gave up this office, from a desire to travel, and went with the baron Hafter to Italy, and, in the autumn of the same year, travelled through a part of Switzerland, with his friend Freiesleben. In 1797, he went, in company with his brother, Charles William, a Prussian minister of state, and a gentleman named Fischer, to Paris, where he became acquainted with Aime Bonpland, a pupil of the medical school and botanic garden in Paris.

Humboldt, who ever since 1792, had cherished the design of travelling within the tropics at his own expense, went to Madrid, with a considerable collection of instruments, where the court, in March, 1799, granted him permission to travel through the Spanish colonies in America. He immediately sent for his friend Bonpland, and sailed with him from Corunna. Their plan was to travel for the space of five years, and was laid out on a larger scale than any journey before undertaken by private individuals. They landed at Teneriffe, where they ascended to the crater of Pico, in order to analyse the atmospheric air, and to make geological observations upon the basalt and porphyry-slate of Africa. In July, they arrived at Cumana in South America. In 1799 and 1800, they visited the coasts of Paria, the Indian missions, and the province of New Andalusia; and likewise travelled through New Barcelona, Venezuela, and Spanish Guiana. After they had ascertained the longitude of Cumana, Caracas, and other places, by the observation of Jupiter's satellites, and botanized on the summits of Ceripa and Silla de Avila, they went, in February, 1800, from Caracas to the charming valleys of Aragua, where the eye is delighted with the splendour of tropical vegetation, along the great lake of Valencia. From Porto Cabello, they travelled into the interior as far as to the equator; afterwards wandered through the extensive plains of Calaboso, Apura, and the Llanos, where the thermometer of Réaumur stood in the shade at 33°—37° (106°—115° of Fahrenheit), and the hot surface of the earth showed, for more than 42,000 square miles, but a very slight difference of level. They also observed, upon the sand in this quarter, the phenomena of refraction and singular elevations. At San Fernando of Apura, they commenced a voyage of more than five hundred leagues in canoes, and surveyed the country with the assistance of chronometers, of Jupiter's satellites, and the moon's amplitude. They descended the Rio Apura, which empties into the Orinoco in the 7th degree of N. latitude, ascended the latter to the mouth of the Rio Guayiare, and passed the celebrated waterfalls of Atures and Maipure, where the cave of Atarnipo encloses the mummies of a nation which was destroyed in a war with the Caribs and Maravites. From the mouth of the Rio Guaviare, they ascended the streams of Atahapo, Tuamini, and Temi. From the mission of Javita, they proceeded by land to the sources of the Guginia (Rio Negro). The Indians carried their canoes through the thick forests of *hevea*, *lecythis* and *laurus cinnamomoides*, to the Cano Pimichin, by which they arrived at the Rio Negro, which they descended to the fort of San Carlos and the boundaries of Grand Para, the principal captaincy of Brasil. In order to determine the branch of the Orinoco, called Cassiquiare, which unites that river with the Amason, Humboldt and Bonpland went from the Spanish fort of San Carlos, through the Black river and the Cassiquiare again to the Orinoco, and along this river to the mission of Esmeraldo, near the volcano of Duida, or to the source of the stream. But the Guairas Indians—a white and almost dwarfish race, but very warlike,—and the copper-coloured Guajaribes—a ferocious race of cannibals, who inhabit the country to the westward,—made it impossible for them to reach the sources of the Orinoco. From Esmeraldo they travelled 345 French miles (about 966 English), the whole length of the Orinoco, to its mouth at St Thomas or Angostura in New Guiana. The travellers passed the waterfalls for the second time, to the southerly side of which neither Peter Gumilla nor Caulin had ever advanced.

After severe hardships, they returned upon the Orinoco to Barcelona and Cumana, through the missions of the Caribbean Indians, a gigantic race. They now tarried some months upon the coasts, and thence proceeded to Cuba, stopping for some time in the southern parts of St Domingo and Jamaica. Here they employed themselves three months, partly in determining the longitude of Havana, and partly in building a new furnace for boiling sugar. From hence they intended to go to Vera Cruz, from that place, through Mexico and Acapulco, to the Philippine islands, and from thence, if possible, through Bombay, Bassora, and Aleppo, to Constantinople; but false reports in regard to Baudin's journey induced them to alter their plan. The American newspapers represented, that this French navigator would go first from France to Buenos Ayres, afterwards sail round cape Horn, and thence proceed to the coasts of Chile and Peru.

Humboldt had, at his departure from Paris in 1798, promised the museum, as well as captain Baudin, that, if the French expedition should take effect during the course of his journey, he would unite himself thereto. Conformably to this promise, he sent his manuscripts, and the collections which he had made in 1799 and 1800, immediately to Europe, where they arrived safe, with the exception of a third part of the collections, which suffered shipwreck. He then hired a vessel in the harbour of Betabam to go to Carthagena, and from thence he intended going across the isthmus of Panama to the Southern ocean. In March, 1801, he left Betabam, sailed along the southern part of the island of Cuba, and took astronomical observations of different points in the group of islands called the Jardin del Rey, together with the landing places in the harbour of Trinidad. He remained a short time at Rio Sinu, where no botanist had ever before collected specimens. Humboldt afterwards observed the eclipse of the moon which took place March 25, 1801. As the season of the year did not permit them to sail from Panama to Guayaquil, they abandoned the plan of passing over the isthmus. The wish to find the celebrated *mutisia*, induced the travellers to spend some weeks in the forests of Turbaco, which were adorned with the most splendid flowers. They then descended the river Magdalena, of which Humboldt sketched a chart, while Bonpland spent his time in studying the productions of the vegetable kingdom, such as *heliconia*, *psychotria*, *melastoma*, *myrodia*, and *dychotria emetica*. From Honda, where they landed, they travelled by difficult paths, through forests of oak and woods of *melastoma* and *cinchona*, to Santa Fé-de-Bogota, the capital of New Grenada. The splendid collections of Mutis, the waterfall of Tequendama, the mining works of Mariquita, Santa Anna, and De Zipagnira, the natural bridge of Icononso—two rocks separated from each other by an earthquake, and supporting another trembling in the air,—all these curious and remarkable objects occupied the attention of the travellers till September, 1801. Notwithstanding the unfavourable rainy season, they travelled to Quito, then descended to the valley of the river Magdalena, crossed the Andes at Quindiu, where the snow-capped summits of Tolina

reared themselves in the midst of forests of storax, passion-flowers, resembling trees in size, bambusas, and wax-palms. When they arrived, barefooted and wet, at the valley of the river Cauca, they rested at Cartago and Buga, and wandered through the province of Choco, the region of the metal platina. They now ascended to Popayan, at the foot of the snow-capped volcanoes of Purace and Sotara, through Caieto and the gold-washings of Quilichao. The thermometer, in this remarkable climate, always stood at 17°—19° of Réaumur (70°—74° of Fahrenheit). They ascended at this time, though with laborious exertions, to the crater of the volcano Purace, the mouth of which is full of boiling water, and, in the midst of snow, sends out a constant vapour of sulphureted hydrogen. They then passed on, avoiding the poisonous valley of Patia, over the steep Cordilleras of Almaguer, to Pasto, and travelled through Guachucal over the mountainous plains of the province de los Pastos.

After four months of great fatigue, they at length reached the cities of Iberra and Quito in the southern hemisphere. They arrived at the latter city, distinguished for the superior education of its inhabitants, January 6, 1802. They continued their geological and botanical surveys eight or nine months in the kingdom of Quito, remarkable for its huge mountains, its volcanoes, its vegetation, its old monuments, but more especially for the manners of its former inhabitants. They ascended twice to the crater of the volcano Pichincha, where they performed experiments to ascertain the composition of the air, its electrical, magnetical, and hygroscopical qualities, its elasticity, and the degree of temperature of boiling water. Meantime they made several excursions to the mountains of Antisana, Cotopaxi, Tunguragua and Chimborazo, whose tops are covered with perpetual snow. The geognostical character of the Andes was also a subject of their particular attention. The trigonometrical and barometrical measurements of Humboldt have fully proved that some of these volcanoes have sunk considerably since 1753, and with this result the observations of the inhabitants perfectly coincide. At the same time, Humboldt was convinced that all these great masses were formed by crystallization. Charles Montufar, son of the marquis of Selvalegre of Quito, a man passionately devoted to science, in January, 1802, joined our travellers, and accompanied them throughout their remaining expeditions to Peru and Mexico. Being favoured by circumstances, they ascended the summits of the most remarkable mountains, to a height hitherto never reached. They ascended Chimborazo, June 23, 1802, 3096 toises, 18,576 Fr. feet (3485 feet higher than Condamine reached, in 1745) above the surface of the sea. The blood started from their eyes, lips, and gums, and they became almost torpid through cold. A narrow, deep valley hindered them from reaching the most remote summit of Chimborazo, which was about 224 toises (or 1344 feet) higher.

From Quito they proceeded to the river Amazon and Trina, in the hope of observing there the transit of Mercury over the sun's disk. They visited the ruins of Lactacunga, Hambato, and Rio Bamba—a country which was overwhelmed, February 7, 1797, by a terrible earthquake—went through the snowy fields of Assonay to Cuenca, and thence through the Paramo of Saraguro to Loxa, where, in the forests of Gonzanama and Malacatos, they made valuable observations on the Peruvian bark. From Loxa they proceeded through Ayavaca and Gouncabamba to Peru, passing over the lofty Andes, in order to reach the river Amazon. They saw the splendid ruins of the road of Yega, which passes over the porphyry rocks of the Andes, between 12 and 1800 toises high, from Cusco to Assonay, and is provided with inns and public fountains. At the village of Chamaya, they embarked on a raft, followed the course of the river of the same name into the Amazon, and ascertained the astronomical situation of their junction. As Condamine had embarked upon the Amazon, below Quebrada de Chuinga, and likewise had not ascertained any longitude except at the mouth of the Rio Napo, Humboldt followed the Amazon to the cataract Regua, and, at Tomependa, drew up an accurate plan of this unknown part of the river. Bonpland had, in the mean time, employed himself in botanical researches. Now, for the fifth time, our travellers passed the Andes, in order to return through Montan and Peru. They determined the point where the magnetic needle of Borda showed the middle point of declination, although under the seventh degree of south latitude, and examined the rich mines of Hualguayok, where silver is found 2000 toises above the surface of the sea. From Caxamarca, which is celebrated for its baths and ruins, they descended to Truxillo, in the neighbourhood of which are included the ruins of the immense Peruvian city, Mansiche, decorated with pyramids, in one of which, in the eighteenth century, was found beaten gold to the value of more than 4,000,000 livres. On this westerly descent of the Andes, they had, for the first time, a magnificent view of the Pacific ocean, and of that long and narrow valley where rain and thunder are unknown. They followed the barren coasts of the southern ocean through Santa and Guarmey to Lima, where Humboldt was so fortunate as to observe pretty accurately, in the harbour of Callao de Lima, the termination of Mercury's transit over the sun. In January, 1803, our travellers took passage for Guayaquil, a harbour upon the bank of a mighty river, where palms, plumaria, tabernæ-montana, and banana plants appear in indescribable splendour. After thirty days, they reached Acapulco.

Although Humboldt wished very much to hasten his return to Europe, yet the beauty of New Spain, the hospitality of its inhabitants, and the fear of the black vomit, then prevalent at Vera Cruz, induced him to delay his departure till the middle of winter. Afterwards they employed themselves in the examination of plants, of the air, the hourly variations of the barometer, the appearances of the magnet, and especially the longitude of Acapulco, and then departed for Mexico. They passed through the sultry valleys of Mescala and Papagayo, where the thermometer stood, in the shade, at 32° of Réaumur (104° Fahrenheit); traversed the lofty plains of Chilpanslugo, Theuilotepec and Tasco, where oaks, cypresses, fir trees, and European grain flourished in a mild climate. Here they visited the mining works of Tasco, where the veins of silver appear alternately in limestone and mica slate, and contain within them gypsum in laminæ. In April, 1803, they ascended through Cuernaraca and the fogs of Cuchilaqua to the city of Mexico, which is very pleasantly situated, and is distinguished from all the cities of the new world by its scientific institutions. After a residence of some months, during which Humboldt corrected the longitude of Mexico, our travellers visited the celebrated mining works of Moran and Real de Monte, where the mines of Biscaya have already yielded to the count of Regla several millions of dollars. They then examined the obsidian of Cymel, which lies imbedded in the layers of pearlstone and porphyry, and served the former inhabitants for knives. This whole country is full of basaltic blocks: amygdaloid and secondary calcarious formations afford the most striking appearances for the consideration of the geologist. These Del Rio, a scholar of

Werner, had already analysed. In 1803, they visited the southern part of the kingdom. They directed their researches to Hunhuetoca, and went thence through Queretano, Salamanca, and the fruitful plains of Yrapuato, to Guanaxuato, whose mines are far more considerable than those of Potosi. They were here occupied, during the space of two months, with measurements and geological investigations, examined the baths of Comagillos, whose temperature is 11° Réaumur (about 25° Fahrenheit), higher than that of those in the Philippine islands, and then went through the valley of St Jago to Valladolid, the capital of the former kingdom of Mechoacan. Thence they descended, notwithstanding the constant autumnal rains, into the plains of Jorulo, on the coasts of the Pacific, where, in 1759, a volcano of 1494 feet in height was raised, in a single night, from the surface of the earth, in the midst of more than 2000 small openings, which are still smoking. They descended to the bottom of the crater, the air of which was very strongly charged with carbonic acid, which they analysed. From the pleasant and fruitful kingdom of Mechoacan, they returned through the elevated plains of Tolucca to Mexico. At Tolucca, they visited the wonderful hand-tree, the *cheiranthostæmon* of Cervantes, of which, since the most ancient times, there has existed but one specimen. At Mexico, they employed themselves in arranging their herbariums and geological collections, in calculating the measurements which they had made, and on the geological atlas, for which Humboldt had taken sketches. They left this city in January, 1804, in order to explore the eastern declivities of the Cordilleras, and made geometrical measurements of both the volcanoes of Puebla, Popocatapetl and Itsaccihuatl. They then passed on through Perote to Xalapa. Notwithstanding the deep snow which covered it, Humboldt arrived at the summit of Cofre, which exceeds in height the Peak of Teneriffe by 162 toises, and determined its situation by observations made on the spot. He also took a trigonometrical survey of the Peak of Orizana.

After a pleasant tour in this country, our travellers descended to the port of Vera Cruz, escaped the black vomit, which then extensively prevailed, and embarked on board a Spanish frigate for Havana, where they again took possession of their collections, which had been deposited there in 1800. They remained here two months, when they set sail for Philadelphia, which they reached, after a passage of thirty-two days. Here and at Washington, they remained two months, and arrived in Europe August 1804. The rich collections which they brought with them are unique in their kinds, and of inestimable value: they contain, among other things, 6300 kinds of plants. The account of their travels, and of their important results, Humboldt published in the splendid work which appeared at Paris, Hamburg, and London, 1810 et seq., *Voyage de Humboldt et Bonpland* (grand folio), the first division of which is devoted to general physics and to an account of their journey. The first part of this account is contained in the numbers already published, under the separate title of *Vues des Cordillères et Monumens des Peuples de l'Amérique*, and is adorned with fifty or sixty engravings. The second division relates to zoology and comparative anatomy; the third contains a political essay on New Spain; the fourth is devoted to astronomy; the fifth to mineralogy and magnetism, and the sixth to botany. The whole series, which consists of twelve volumes, 4to, three volumes, folio, with two collections of maps, and one of picturesque engravings, is justly called, by a competent judge, "a work of gigantic extent and richness, to which the modern literature of Europe can hardly offer a parallel."

Humboldt, after his return, with Gay-Lussac in Paris, rectified the theory of the situation of the magnetic equator, and laid before the academy of sciences, in 1817, his chart of the remarkable course of the river Orinoco. In October, 1818, he visited London, where it is said the allied powers requested him to sketch a plan of the political situation of the South American people. For the execution of his plan to undertake a scientific journey to the East Indies and Thibet, the king of Prussia, at Aix-la-Chapelle, in November, 1818, granted him a yearly pension of 12,000 dollars, and the use of the necessary instruments. But this journey was abandoned. Humboldt lived many years in Paris, devoted to the sciences, till, in the winter of 1822, he was called to Verona to accompany the king of Prussia on his journey through Italy. His residence at Naples was the cause of his inquiries into the formation of volcanoes, the result of which he gave to the public in a small essay. In the latter part of 1826, he returned from Paris to Berlin. In 1829, he made a journey to Northern Asia, as far as to the confines of China, in which he was much assisted by the Russian government, which wished to obtain, through him, more accurate information respecting the character and contents of the Ural mountains. After his return, he communicated several pieces of highly interesting information connected with his journey. He died in 1835.

HUME, DAVID, an eminent historian and philosopher, was born at Edinburgh, on the 22d April, 1711. His father was a descendant of the family of the earl of Home, but not opulent, and the subject of this article being his youngest son, his fortune was very small. Losing his father in his infancy, he was brought up under the care of his mother, a woman of singular merit, daughter to Sir David Falconer, a judge of the court of session under the designation of lord Newton. He was destined by his family for the law; but his passion for literature was so strong, that he could not confine himself to professional studies, and, as he observes in his memoirs, while his family fancied him to be poring over Voet and Vinnius, he was occupied with Cicero and Virgil. In 1734, he visited Bristol, with recommendations to some eminent merchants; but he was as little disposed to commerce as to law, and resolved to retire to some provincial town of France, with the intention of prosecuting his literary pursuits in privacy, and of supplying, by economy, his pecuniary deficiencies. He passed three years in France, in a manner very accordant with his own inclinations. In 1737, he went to London, and the next year published his Treatise upon Human Nature, the entire neglect of which work proved a severe mortification. In 1742, he printed at Edinburgh his Essays, Moral, Political, and Literary, which, owing to their more popular form and elegance of style, were very favourably received. In 1745, he took up his residence with the young marquis of Annandale, to whom he acted as a sort of guardian—an office which was rendered necessary by that nobleman's health and state of mind. He remained in this situation for a year, and then stood candidate for the professorship of moral philosophy at Edinburgh; but, although strongly supported, he was excluded by the negative of the presbytery, in consequence of his known scepticism. In 1746, he accompanied general Sinclair, as his secretary, in an expedition designed against Canada, but which ended in an attack upon the French coast; and, in 1747, attended the same officer in a military embassy to the courts of Vienna and Turin. Having been led to imagine that the neglect of his Treatise

upon Human Nature originated from its too dry and systematic form, he cast the first part of the work anew, and caused it to be published, while he was abroad, with the title of an Inquiry concerning the Human Understanding. It, however, attracted very little more notice than at first, and, on his return the author retired to Scotland, where he resided two years. In 1751, he repaired to the metropolis, where, in the next year, he published his Political Discourses, which were at once well received. Nearly about the same time, appeared his Inquiry concerning the Principles of Morals—a work that he himself deems "incomparably his best," but which met with but little attention. In 1752, he obtained the appointment of librarian to the faculty of advocates at Edinburgh, which, by affording him the command of a large and curious collection of books, seems to have inspired him with the idea of writing history. The History of England, under the House of Stuart, of which a quarto volume appeared in 1754, to use his own language, was received "with one cry of reproach, disapprobation, and even detestation." He attributes this reception to his favourable treatment of Charles I. and lord Strafford, but it was much more owing to his equally contemptuous mention of the opposing religious parties; which, as far as they were sincerely actuated by their opinions, he regards as little more than votaries of superstition on the one side, and of enthusiasm on the other. The work was therefore not only decried, but neglected; and, had not a war broken out between the two countries, the author would have again retired to France. His constitutional equanimity, however, gradually prevailed, and he resolved to proceed in his task; in the mean time, he published his Natural History of Religion, and other pieces, the first of which was answered by Warburton, in the name of doctor Hurd. In 1756, he published the second volume of his history, which embraced the period from Charles II. to the revolution, and was comparatively well received. He now resolved to take a wider range, and, in 1759, published his History of the House of Tudor, which excited almost as much clamour against him as his first volume. His reputation as a historian, however, gradually increased, and he was encouraged to complete his work from the earliest period, which he accomplished, in two additional volumes, in 1761; and his History of England became thenceforth a standard book. Although free from the narrow partialities and prejudices which so frequently influence national historians, and enlarged and philosophical in his general views of events and characters, his researches into the origin and progress of the English constitution are wanting both in depth and accuracy. He has too sweepingly regarded the liberty of the country as of modern date, and the mere result of concessions from the sovereign, and has sometimes even coloured facts to support that conclusion. His predilection for the house of Stuart has also made him somewhat unfair to that of Tudor, and still more to the real patriotism of the motives of many of those who sought to curb the high pretensions and baleful extent of prerogative so imprudently claimed by that unhappy family. With every abatement, however, his reputation stands high, and, aided by his clear style,—which although sometimes incorrect, and exhibiting Gallicisms, is frequently eloquent, and always agreeable,—will probably remain so. The copy money received for his History, added to a considerable pension obtained from the crown by the interest of lord Bute, finally secured him independence, and he was about to retire from his native country, when he was invited by the earl of Hertford, then proceeding as ambassador to Paris, to attend him, with a view of ultimately becoming the secretary of the embassy. He accordingly accompanied that nobleman to France, and received the expected appointment. He was also farther gratified by a most enthusiastic reception in the Parisian circles, in his character of historian and philosopher. He remained *chargé d'affaires*, after the departure of lord Hertford, in 1756, and returned to England in 1766, accompanied by Jean Jacques Rousseau, to whom he behaved with a delicacy and generosity which that eccentric person repaid with his usual ingratitude and suspicion. Mr Hume, in 1767, became under secretary of state, under general Conway, which post he held until the resignation of that minister, in 1769. He then finally retired to Edinburgh; and having, by this time, realised a thousand per annum, he drew round him a chosen set of amiable associates, among whom he lived, generally admired and respected. He died Aug. 25, 1776, in the sixty-fifth year of his age. Doctor Adam Smith depictures him as charitable, generous, urbane, and possessed of a degree of gayety and good humour which is seldom attendant on students so persevering as Mr Hume. This temper even evinced itself on his death-bed, and it will be as difficult to deny the high personal moral claims of this writer, favoured as he was with the rare talent of self-command, as the vigour and acuteness of his intellect. He doubtless takes the lead among modern philosophical sceptics, and, while open to the objections to which that system of philosophising will ever be liable, he must be allowed to have upheld it with distinguished ability.

HUMMING-BIRD (*trochilus*). These beautiful birds, which may be termed the gems of animated nature, are peculiar to America, and almost exclusively tropical. They are distinguished by their long and slender bill, and attenuated and retractile tongue, which is divided into two filaments from the middle to the tip. They feed on honey, though they are also insectivorous. Their flight is extremely rapid, and, whilst feeding, they remain poised in the air by means of the horizontal motion of their wings, which produces a humming noise, whence their common name is derived. The genus *trochilus* is very extensive. There is, however, only one species in the United States, the *T. colubris*, belonging to the subgenus *mellisuga* (Bris.), or those having straight bills. This well known and splendid little bird arrives in Pennsylvania towards the end of April, and begins to build its nest early in May. This is usually fixed on the upper side of a horizontal branch, seldom above ten feet from the ground. It is hemispherical, and about an inch in diameter, lined with vegetable down, and covered externally with lichen. The female lays two eggs of a white colour. The humming-bird is very fond of tubular flowers, particularly those of the trumpet vine. When he alights, he always prefers the small dead twigs of a tree or bush, where he dresses and arranges his plumage with great dexterity. His only note is a single chirp, not louder than that of a cricket. The humming-bird is very irascible, two males scarcely ever meeting without a contest ensuing. They will also attack birds of a much larger size, as wrens or king-birds, and sometimes have contests for a favourite flower with the bumble-bee. From the beauty of this bird, many attempts have been made to domesticate them, but unsuccessfully, though they have been kept from three to four months with attention. They are exceedingly susceptible of cold, and droop and die when deprived of the animating influence of the sun's rays. There is every reason to believe that insects form no inconsiderable portion of their food. They begin to retire south in September, and, in November, take refuge, for the winter, in Florida. The common humming-bird is

three inches and a half in length, and four and a quarter in extent. The whole back, upper part of the neck, sides under the wings, tail coverts, and two middle feathers of the tail, are of a rich golden green; the tail is forked, and, as well as the wings, of a deep brownish purple; the bill and eyes black; but what constitutes their chief ornament, is the splendour of the feathers of the throat, which, when viewed in a proper light, rival the ruby in brilliancy. These feathers are of singular strength and texture, lying close together, like scales, and varying, when moved before the eye, from a deep black to a fiery crimson and burning orange. The female is destitute of them. The young males begin to acquire them in September. (For fuller information, we must refer to Wilson's American Ornithology and the Naturalist's Library, by Sir William Jardine, vols. 1. and 2., Edin. 1833, 12mo.) That magnificent work, *Les Oiseaux*, vividly represents most of the known species.

HUMORAL, in medicine; what has relation to the humours or fluids of the system. The humoral pathology is a medical theory which long prevailed, and attributed all diseases to irregular changes in the fluid parts of the body, without assigning any influence to the state of the solids. The opposite theory is that which refers every thing to the nervous energy resident in the solids, and considers diseases as arising from irregularities in their functions. The humoral pathology is exposed, in many ways, to the objection, that it rests on hypotheses, and is very partial in its views. The views of the adherents of this theory have differed continually, with the progress of knowledge, from the days of Hippocrates and Galen, its great supporters, down to very late times. The nervous pathology is also liable to the objection of being of a partial and hypothetical character. Of late, the two systems have been blended, and both fluids and solids allowed a share in the changes of the body.

HUNDRED, in England; a division of a shire or county. It was so called, according to some writers, because each hundred found 100 *fidejussors*, or sureties of the king's peace, or 100 able-bodied men of war. Others think it to have been so called because originally composed of 100 families. Hundreds were first introduced into England by Alfred. They seem to have previously existed in Denmark; and in France, a regulation of this sort was made, above 200 years before, by Clothaire and Childebert, with a view of obliging each district to answer for the robberies committed in it. Something like this institution may be traced back to the ancient Germans, from whom were derived the Franks, who became masters of Gaul, and the Saxons, who settled in England; for both the thing and the name, as a territorial assemblage of persons, were well known to that warlike people. By various statutes, hundreds are liable to actions for injuries sustained by riots, robberies, malicious mischiefs, &c.

HUNDRED COURT. See *Courts*.

HUNDSBRUCK (meaning *dog's back*); a continuation of the Vosges, of moderate height, in the Prussian province of the Lower Rhine, extending from east to west between the rivers Nahe, Rhine, and Moselle. The range is calcarious, and covered with wood. The highest elevation is 1600 German feet. Flax thrives well. Some write the name *Hunsrück*, and derive it from a colony of Huns planted here by the emperor Gratian, or from a remnant of Attila's followers, who took refuge here after his defeat at Chalons.

HUNGARY; the country of the Magyars, or *Hungarians*, as they were first called by their Sclavonic neighbours in Russia. In their own language they are called *Magyars*, and their origin is by no means precisely ascertained. The older writers represent them as derived from the Huns of Attila. A supposed resemblance of their language to that of the Finns gave rise to the opinion that they were of Finnish origin. Fejer, keeper of the university library at Pesth, derives them from the Parthians. (*Scientific Magazine*, in Hungarian, 1825), and Reinegg and Pallas found Magyar tribes on the east side of the Caspian. They appear to have emigrated from Asia into Europe towards the end of the seventh century, and, after occupying the country between the Don and the Dnieper for two hundred years, they were pressed forward by the Petchenegues, and, 894, they entered Hungary, under their prince Almus. In 900, under Arpad, son of Almus, they completed its reduction, after having conquered the Bulgarians, Sclavonians, Walachians, Moravians, Germans, Italians, Croatians, Szeklers, and Dalmatians, who then occupied the country. The conquered territory was at first distributed only amongst the chiefs of the tribes; but the duke soon acquired the right of rewarding the courage of the soldiers by the investiture of lands without regard to their rank. The Magyars next made predatory incursions into the neighbouring countries, to which they were chiefly invited by foreign princes, and advanced to the north as far as Hamburg and Bremen, to the west into Provence, on the south to Otranto, and eastward as far as Constantinople. These formidable enemies, whose active cavalry it was almost vain to attack, were first defeated by Henry I., the German emperor, at Merseburg, in 933; they then invaded Franconia in 937, and Saxony in 938, were defeated at Stederburg, and in the Drommling on the Ohra. Their last incursion into Bavaria, 954 and 955, terminated with their complete overthrow on the Lech, where Otho I., king of the Germans, conquered them. They gradually learnt, from the Sclavonians and Germans, whom they conquered, and from the prisoners whom they had taken in their incursions, the arts of peace, agriculture, and manufactures. The hospitality of Geysa, and the religious zeal of Sarolta, his wife, did much to attract strangers, from different countries and of all classes, into Hungary. The Hungarians violently opposed the introduction of Christianity by the bishops Pellegrin of Passau and Adelbert of Prague, and Geysa was obliged to leave the farther extension of it to his son Stephen, who finally prevailed by the assistance of Latin monks and German knights. Stephen was rewarded for his services in extirpating the heathens, by a crown from pope Sylvester II., part of which still remains on the *sacra regni Hungariæ corona*, and by a patriarchal cross, with the title of *apostolic king*. Thus Stephen founded the kingdom in 1000, which, according to the notions of that period, he endeavoured to strengthen by the power of the hierarchy and the aristocracy. He established ten richly endowed bishoprics, and divided the whole empire into seventy-two counties,* with an officer at the head of each, responsible only to the king, and invested with full military and civil power. These

* The counties of Hungary may consist of two or more districts. Each one has its governor, a vice-governor, who is collector of the revenues, a notary, four superior and four inferior judges. All these civil officers must be chosen from the nobility who have estates in the county. In twelve counties the dignity of governor is hereditary, but in others it is connected with one of the high offices of the kingdom or with a bishopric, or the court appoints whom it will out of the nobility. The nobility elect the other officers of the county from three, whom the governor names. These parts of Transylvania, Sclavonia, and Croatia, to which the name *Land of the Hungarians* is given, with the exception of the military settlements on the frontiers, are also divided into counties.

officers and the bishops formed the senate of the kingdom, with whose concurrence king Stephen granted a constitution, the principal features of which are still preserved. The unsettled state of the succession to the crown, and the consequent interference of neighbouring princes, and of the Roman court, in the domestic concerns of Hungary, the inveterate hatred of the Magyars against the foreigners, who were favoured by Peter, the successor of Stephen, the secret struggle of paganism with Christianity, and particularly the arrogance of the clergy and nobility, long retarded the prosperity of the country. The religious zeal and bravery of St Ladislaus, and the energy and prudence of Colomann, shine amidst the darkness of this period. These two monarchs extended the boundaries of the empire, the former by the conquest of Croatia and Sclavonia (1089), the latter by the conquest of Dalmatia (1102). They asserted, with firmness, the dignity of the Hungarian crown, and the independence of the nation, against all foreign attacks, and restored order and tranquillity at home by wise laws and prudent regulations.

The introduction of German colonists, from Flanders and Alsace, into Zips and Transylvania, by Geysa II. (1148), had an important influence on those districts; and the connexion of Hungary with Constantinople during the reign of Bela III., who had been educated in that city, had a favourable effect on the country in general. The Magyars, who had previously passed the greater part of the year in tents, became more accustomed to living in towns, and to civil institutions. Several court officers and a royal chancellor were created on the model of the Greek court. On the other hand, Hungary became connected with France by the second marriage of Bela (1186) with Margaret, sister to Henry, king of France, and widow of Henry, king of England. She introduced French elegance at the Hungarian court, and at this time we find the first mention of Hungarians studying at Paris; but these improvements were soon checked. The rich nobility and the clergy availed themselves of the weakness of Andrew II. to extend their influence and power. The former extorted a confirmation and extension of their privileges by the golden bull in 1222, the latter a favourable concordate. The reforms of Bela IV. were interrupted by the invasions of the Mongols (1241), and the kingdom was in a most deplorable condition. After the retreat of these wild hordes, Bela endeavoured to heal the wounds of his country. He induced Germans to settle in the depopulated country, and elevated the condition of the citizens by increasing the number of royal free cities; but the coronation of his son, as co-regent, gave rise to many disputes between them, which weakened the royal authority, and hastened the decline of the state. With Andrew III. the male line of the Arpad dynasty became extinct (1301).

Under the princes of the house of Anjou, Hungary attained the summit of its power. These princes considered the prelates and the nobles as the supports of their thrones, yet they imposed certain obligations in return for the privileges granted them, such as that of maintaining troops. Charles I. improved the currency, introduced a new system of taxation, which extended also to the peasants of the nobility and clergy, and substituted regular judicial proceedings for trials by ordeal, which were then practised. Louis I. added Poland, Red Russia, Moldavia, and a part of Servia, to his kingdom. His expeditions and campaigns made the nation acquainted with foreign civilisation. He founded a high school (1367) at Funfkirchen, delivered commerce from exorbitant duties, and banished the Jews from the country. The reign of Sigismund is interesting from his disputes with the oligarchs, who even kept him in prison for several months, the invasion of Hungary by the Turks, (1391), and the war with the Hussites. Although he was much engaged, as Roman emperor, with the affairs of Germany and the Catholic church, he introduced equality of weights and measures and the first military regulation into Hungary, raised the royal free cities to the privilege of an estate (1405), and founded an academy at Buda. From their first appearance, the Turks constantly disturbed the tranquillity of Hungary, which served as a bulwark to the rest of Europe. The death of Ladislaus I., in the unfortunate battle of Varna (1444), is the more to be regretted, as the plan of the hero John Hunniades, for driving the Turks from Europe, failed through the coldness of the Christian courts and the intrigues of his enemies.

Matthias Corvinus, son of Hunniades, held the reins of government with a firm hand. Combining the talents of a diplomatist and a general, he silenced or defeated all his enemies at home or abroad, secured the public tranquillity, which had been but too often disturbed, by his judicial organisation of the counties, and gained the love and confidence of the nation, notwithstanding the severe measures which he was often compelled to adopt. It is still a proverbial expression with the lower classes in Hungary, "King Matthias is dead, and justice with him." He showed his love of learning by the foundation of a new university at Presburg (Istropolis), 1467, by inviting learned men from foreign countries, particularly from Italy, and by his excellent library, in the royal castle of Buda, the treasures of which were scattered soon after his death.

During the reigns of Ladislaus II. and Louis II., the ambition and rapacity of the optimates, headed by Stephen Zapolya, and afterwards by his son John, excited domestic troubles, and caused an insurrection of the peasants, which was only suppressed by the severest measures (1514), while they destroyed the foreign influence of the kingdom. The battle of Mohacs (1526), in which Louis II. lost his life, and which, for 160 years, made a great part of Hungary a Turkish province, was the natural consequence of this state of things. The rest of the country was in dispute between the rivals Ferdinand of Austria and John Zapolya. The contest was decided by the Protestants, who, fearing the persecution of Zapolya, declared for Ferdinand. Their adherence gave him the superiority, and Zapolya was compelled to rest satisfied with the possession of Transylvania and some counties of Upper Hungary; but this division of the kingdom caused continual disputes with the descendants of Zapolya, instigated by the Turks and the French, and, together with the persecutions of the Protestants (particularly after the admission of the Jesuits, 1561), gave rise to civil commotions, which were quieted by the treaties of Vienna, with Stephen Botskay (1606), of Nikelsburg, with Gabriel Bethlen (1622), and of Linta, with George Rakoczy (1645). These circumstances delayed the expulsion of the Turks, in which Leopold I. finally succeeded so far that he took Buda (1686), and, by the peace of Carlowitz (1699), recovered the rest of Hungary, (except the Bannat) and Transylvania. This treaty, however, and the establishment of the *commissio neoacquistica*, to decide all claims on the countries recovered from the Turks, gave rise to new troubles, which were not quieted until the peace of Szathmar in 1711.

The congress of Passarowitz (1718) restored the Bannat to Hungary, and the peace of Belgrade (1739) terminated hostilities with the Porte for a long time. Charles VI., by the pragmatic sanction, secured the inheritance of the Hungarian crown to the female descendants of the house of Hapsburg, and

improved the administration of the kingdom, by giving the royal chancery and the vice-regal office an organisation better suited to the age. He also formed a standing army for Hungary, and established the military contribution for its support. Maria Theresa did much for the improvement of Hungary, by the promulgation of the rural code, called *Urbarium* (1765), the object of which was to fix the services, and improve the condition of the peasants; also by the formation of village schools (1770), and the abolishing of the order of Jesuits (1773). It cannot be doubted that Joseph II., one of the greatest sovereigns of his age, was influenced by the best intentions in the changes which he undertook in the Hungarian constitution, but his zeal made him forget the necessity of proceeding gradually in such reforms. The nation, far from entering into his views, opposed them, and Leopold II. was compelled to revoke the ordinances of his brother, who, besides, had never been crowned in Hungary.

Hungary, with its appendages, Croatia, Sclavonia, the Littorale and Transylvania, lies between the German provinces of Austria and Turkey. It is almost surrounded with mountains, among which the Carpathian, on the north, extend, in numerous branches, into the centre of the country. Between the two principal rivers, the Danube and the Theis, is a fertile plain containing more than 21,000 square miles. Rivers and streams water the country in every direction. Amongst the lakes, the Plattensee (forty-five miles long and five to nine miles wide) and the Neusiedlersee (twenty miles long, four to seven miles wide,) are the most extensive; and among the morasses, the Etseder morass (twenty-two miles long, six or seven miles wide), and the (so called) *Sárrét*, which has been partly drained, are the principal.

The situation of Hungary, and particularly the nature of its surface, render it one of the healthiest countries in Europe. Protected from the north winds by high mountains, it is open to the mild sea breezes from the south, which are tempered by the great bodies of water. It is also owing to the variety of its surface that Hungary possesses so great a diversity of climate, which, combined with the fertility of the soil, abundantly supplies her with all the natural productions necessary for the comfort of man. All kinds of corn, a sort of maize (*Kukerutz*), rice, kitchen vegetables and garden plants of every description, melons (which are cultivated in open fields), Turkish pepper (*paprika*), fruits (particularly plums, for the sake of the brandy prepared from them, called *Slivovitza*), wines of different kinds (from 18,000,000 to 20,000,000 eimers—about fifteen gallons each—annually), wood, gallnuts, potash, tobacco (300,000 quintals), hemp, flax, hops, saffron, woad, madder, sumach, cotton, and rhubarb are among the products of Hungary. Horses, cattle (5,000,000), sheep (8,000,000), hogs, game (in the north, bears), poultry, fish (amongst which the sturgeon and salmon [*salmo dantex*] are the principal), bees, and silkworms (which annually yield nearly 20,000 pounds of silk), are among the productions of the animal kingdom. Among the minerals are gold, silver, copper, iron, lead, zinc, cobalt, antimony, sulphur, arsenic, salt, soda, saltpetre, alum, vitriol, marble, coals, peat; amongst the precious stones, the opal and chalcedony are remarkably beautiful. No country has so many mineral and medicinal springs.

The population of Hungary, exclusive of Transylvania, exceeds 9,400,000, in fifty-two free cities, 691 market towns, and 11,068 villages, upon a superficial area of 88,500 square miles. (Transylvania contains, besides, 23,500 square miles, with a population of 2,000,000, and the military frontiers, 12,000 square miles, with 934,000 inhabitants.) The principal towns, according to Assalay's table, are Pesth (46,646 inhabitants), and Debrecsin (40,695 inhabitants). The largest village on the European continent is Csaba, eighty-five miles from Pesth, which has over 20,000 inhabitants, all Sclavonians, and nearly all Protestants.

The great number of distinct races, with entirely different habits, which is found in Hungary is remarkable. The inhabitants are composed of 1. Magyars; 2. Slowacks, Szotaki, Ruthenians, (Russians), Bohemians, Poles, Vandals, Croats, Slavonians, Servians, Bulgarians; 3. Germans, viz. Saxons, Swabians, Franconians; of emigrants from the Alsace, Thuringia, the Tyrolese, Austria, &c. &c.; 4. Wlachians; 5. New Greeks, or Macedonians; 6. Macedo-Wlachians; 7. Armenians; 8. Elementines; 9. Frenchmen; 10. Italians; 11. Jews; 12. Portuguese and Spanish Jews; 13. Gipsies; 14. Turks. It is most interesting to observe how strikingly the characters of the different inhabitants of Hungary distinguish themselves in the most varied relations of life. In a German work on Hungary, published at Harleben in 1829, the author has described this generally by some slight though striking touches. We shall extract a few of them: "Slowacks, Ruthenians, Germans, Wlachians, Vandals, and partly Croats, seem to be partial to cold, mountainous districts. The Magyar alone seems to be a downright equatorial creature, inasmuch as he is fond of champaign countries, of a warm climate, and a fertile soil. He occupies the most favoured part of the kingdom. The Armenian too is partial to a champaign-country; as for the Jews, they are satisfied anywhere, whilst they are in the way of getting money. The Slowacks and Germans must be looked for in towns, the Magyars in market-towns, the Slowacks in large villages, the Wlachians, and Ruthenians in small scattered hamlets. The Magyars in general, are well fed, the Slowacks meagre, the Ruthenians, Servians, Wlachians, and Vandals rather lean, the Germans emaciated and of a livid complexion; all these latter tribes, inasmuch as they, in general, inhabit mountainous districts. The language of the Hungarians is bold, sharp, and lofty: and the Hungarian is proud. The language of the Servian, on the contrary, is peaceable, simple, calm, and gentle; and so is also his character. The Hungarian is more irritable, violent, and hasty; the Slavonian slower and more persevering. The Hungarian, therefore, would be more desirable as a lover, the Slavonian as a husband; the former more irresistible in a war of aggression; the latter in the defence of a fortified place. The Hungarian incontestably possesses the most fiery temper, and is completely qualified both for uncommonly good and bad actions. The Slowack is much cooler, and still more so the German; then follows the Wlachian and Servian, and last of all, the Ruthenian. The poor Jew is totally destitute of courage, and may be frightened with an empty meal-sack beyond the Carpathian mountains. The Hungarian soon forgets injuries, the German later, but the Slowack and Wlachian never. The Ruthenian is continually quarrelling; the Jew is for ever involved in lawsuits, but is ready to be reconciled, as soon as danger threatens his family or one of his nation. The Magyar is proud of being mounted on a fine horse; the Slowack, when he is permitted to converse rather familiarly with people of high rank; the German when he may carry a cane in his hand (as judge of his village); the Wlachian, when he can exhibit a shining hatchet, the Ruthenian, when he is admitted to the honour of clerical orders; the Jew, when he has got farmers on his rent-roll; and the gipsy, when he is dressed in scarlet breeches. The German ladies of Zips are extremely fond of flowers, whilst those of Oedenburgh

are entirely indifferent to them. When the Magyar is in liquor, he is melancholy, nay even careless of his life; the Slowack pretends to be witty, the German is talkative and very tiresome, the Wlachian is quarrelsome, and ready to shed blood; and the Ruthenian mutters inwardly, is reserved and prone to revenge. When the Magyar or Slowack is going to cheat a person he praises him; the German offers him his services, the Wlachian protests to be his friend; the Ruthenian feigns to be stupid; the Servian is submissive; the Jew promises mountains of gold; the gipsy jokes. Whenever a quarrel arises, the German screams and threatens, the Croat swears and curses, the Ruthenian spits at his adversary, and seises him by his hair; the Slowack makes use of his fists, and boxes his enemy; the Magyar cudgels him till blood begins to flow, the gipsy assails his face with his nails; the Wlachian strives to strike him dead, and the Jew screams and takes to his heels. When the Magyar swears he always takes God to witness, whilst the Slowack calls upon the devil to take him. The cursing Magyar, Wlachian, and Servian use an immense variety of abusive names; the Slowack hurls a thousand thunderbolts at his opponent, and the German ever calls the devil to his aid. The Magyar preferably appropriates to himself, without paying for it, (i. e. steals) cattle, especially horses, then oxen, the Slowack eatables, the Slavonian iron and leather utensils, the Wlachian money; the latter does not hesitate murdering a traveller for the sake of a few shining buttons, which he takes for gold, whilst the German without discrimination pilfers whatever he can get. When the Slowack abstains from stealing, he does it because he believes theft to be criminal; the Ruthenian from fear of punishment; the Magyar because he is not in the humour for it, and the German for want of an opportunity. The Magyar by preference enters into the light-horse service, the Slowack also prefers serving in the cavalry, whilst the Ruthenian is afraid of horses, and you cannot terrify him more than by telling him that he is to be a hussar; the Wlachian and German seem to be born for serving in the artillery; the Jew, however, for the train-service, for he is very much afraid of fire-arms.

As for the rest, the Slowack is fond of performing his labour with his feet, hands, and mouth; the Jew with his mouth and feet; the Ruthenian, Wlachian, and Slavonian rarely use one or the other, finding their greatest delight in the sweet *far niente*. To the great national kitchen the Magyar contributes bread, meat, and wine, the Ruthenian and Wlachian, salt from the salt-pits of Marmorosh; the Slavonian bacon, for Slavonia furnishes the greater number of fattened pigs; the German, potatoes and vegetables; the Italian, rice; the Slowack, milk, cheese, and butter, table-linen and kitchen utensils, crockery-ware; the Jew supplies the Hungarians with money, and the gipsy furnishes the national entertainment with music.

The Hungarian has a natural inclination to agriculture and the breeding of cattle. Both are, however, still in their infancy, but the inexhaustible fertility of nature supplies every deficiency of industry and skill. It must not be forgotten, that Hungary has comparatively but a small population, that the Hungarian peasant has no property in the soil, and that foreign commerce is checked. Many improvements are made by individual proprietors, and Hungary may justly boast of two institutions, founded by private individuals, for the promotion of agriculture, the *Georgicon* at Kesthely, and the agricultural institute in Hungarian Altenburg. Mining is carried on by Germans and Sclavonians. There is a mining academy at Schemnitz, to which foreigners frequently resort. The principal artisans are tanners, furriers, manufacturers of *tschism* (cordovan boots), lacemakers, and barbers. There are few manufactures that flourish in Hungary. Iron and copper, lines, leather, alum, and saltpetre, are some of the articles of industry. The potteries (the large establishment at Debrecsin produces annually 11,000,000 pipe heads), the cloth manufactories at Gatsch, and the sugar refineries at Fiume, deserve to be mentioned. Trade is almost exclusively in the hands of the Germans, Greeks, and Jews. Internal commerce is promoted by the Temesch and Francis canals (the former seventy-five, the latter sixty and a half miles long), the fairs (which amount to 2000), and the complete absence of tolls: the clearing of the navigable rivers, and the building of regular roads, under the direction of the superintendents of the highways, are carefully attended to. The foreign commerce is limited to the natural productions, and is besides checked by the Austrian system of duties, together with the tobacco and salt monopoly of the government.

The Hungarian constitution is in force in Croatia, Sclavonia, and the Littorale, but not in Transylvania and the military frontiers, which are governed by their own laws. The inhabitants are divided into nobles and people. To the nobility belong the clergy, the magnates (barons of the empire, the chiefs of counties, dukes, counts, &c.), those individuals, with their descendants, to whom the king has granted patents of nobility, or on whom he has conferred estates, the royal free cities and some privileged districts, as bodies corporate. The nobility, styled, in official Latin, the *populus Hungaricus*, are exempt from taxes (except on their estates within the territories of a city, and also excepting the land tax, which they pay as vassals of other nobles). They pay no imposts (unless engaged in commerce) nor tithes, and are not liable to have soldiers quartered on them; they cannot be imprisoned until after conviction of a crime, except in case of high treason, or unless taken in the act. The violation of their person or property (*major potentia*) is punished with the loss of the property of the offending party. The nobles only can hold landed estate, and they exercise the *regalia* on them, and certain offices can be enjoyed only by them. The estates belonging to the nobles, according to the terms of grant, descend either in the male line alone, or to the female line also; on the extinction of the family, they revert to the crown, which, however, is bound to grant them immediately to some deserving individual. In return for their privileges, the nobility are liable to a sudden levy for military service, in case of emergency. This is called *insurrectio*, and they must serve in person, and at their own expense. The citizens of the royal free cities, and the inhabitants of the privileged districts, also enjoy many exemptions. The whole burden therefore falls on the peasants, or the *misera plebs contribuens*, as they are styled; for, besides contributions in money and in kind, and the labour which they are bound to perform for the lord of the manor, they also pay tithes of all their produce to the clergy, maintain the county magistracies and the army, and labour on the public works without pay. The bounty of nature, and the frugality of the Hungarian peasant, can alone explain how, under all these impositions, he can still maintain himself, and, if favoured by circumstances, can sometimes even accumulate a little property. The peasant is not attached to the soil, but the state provides that the place of an emigrant shall be immediately filled, in order that the amount of the contribution may not be lessened.

A second distinction consists in the difference of religion. Though all sects are, in general, equal, yet the exceptions expressly named, the indistinct-

ness of the expression in the particular cases, and the proselyting activity of the Catholic clergy, render the Catholic religion predominant. Children, whose parents are of different religions, if the father is a Catholic, must be educated in the Catholic religion; but if he is a Protestant, only the sons can adopt his religion. This is the cause of most of the oppressions, which the people suffer from the clergy, who are very careful to prevent the Protestant religion from getting the ascendency.

The legislative power is vested in the diet, that is, the king and the estates. The estates consist of the higher clergy (bishops, popes, and abbots), the magnates, the two courts of appeal, and two representatives from each chapter, county, city, and privileged district. They are divided into two chambers (*tabulæ*), under the presidency of the palatine and the *personal* (president of the royal chambers of justice). The diet has also the privilege of crowning the king (who swears to maintain the liberties and rights of the kingdom, and to recover all the lost provinces, and annex them to the kingdom), of electing the palatine (the first officer of the state), and of granting supplies and subsidies in money, in kind, and in troops. The king has, 1. the right of patronage, or the investiture of all ecclesiastical benefices; 2. the right of conferring nobility (yet certain prelates have the power, by granting particular estates, of placing persons, not belonging to the nobility, in a condition nearly equivalent to that of the nobility); 3. the appointment to all offices and honours excepting that of palatine; 4. the coining of money; 5. the regulation of the post; 6. the right of declaring war and making peace; 7. the command of the army; 8. the right of assembling and dissolving the diet. The inferior administration of the country is differently organised in relation to the various classes of inhabitants. The whole country is divided into fifty-three counties, of which there is one in the Littorale, three in Croatia, and three in Sclavonia. The county magistrates have the immediate government over both the nobility and the peasants of the county; but they are elected by the nobility, every three years, from their own members, besides which they advise with the nobility on subjects of general interest, in public meetings. The citizens of the free cities have also their own magistrates, consisting of the inner council (senators elected for life), and the outer (the electors who choose the senate and fill their own vacancies). The privileged districts also choose their own magistrates. The royal regency (in Buda), at the head of which is the palatine, is over all the offices above named. It has the supreme administration of the country, and is the regular organ of communication between the king and country; it watches over the observance of the constitution, and submits to the king any proposals for the public good. The king exercises his authority through the Hungarian chancery (in Vienna). Besides their political powers, the inferior authorities exercise the administration of justice in the first instance. But the peasant is subject to the seigneurial jurisdiction of the lord of the manor, which sometimes extends even to criminal cases, if the lord is invested with the *jus gladii* (as it is called). There are three county courts in civil cases, according to the importance of the subject in question; consisting either of a judge with a jury, or of the vice-officer of the county with a judge and jury, or of the supreme tribunal of the county (*sedes judiciaria, Sedria*), which also revises the decisions of the two other courts and of the seigneurial courts, and has the sole jurisdiction in all criminal cases in the counties. In certain civil processes, designated by law, four district tables (*tabulæ*) in Hungary, and one in Croatia, exercise original jurisdiction. The courts of appellate jurisdiction are the royal table (which, however, in several cases, has original jurisdiction) and the table of the seven (both in Pesth). They are both comprised under the name of *curia regia*, the sentences of which have the force of law, in case there is no positive law. The Catholic clergy in Hungary are powerful, by reason of their large landed property, and the influence which they possess over all offices. 10,000 clergymen, with three archbishops and twenty diocesan bishops (among whom are four Greek Catholics), watch over the Catholic flock. The Protestants have a primitive form of government. Laymen and clergymen united (*presbyteri*) manage the affairs of the different congregations, under the direction of superintendents. The adherents of the Augsburg confession have also a general superintendent. There are seven bishops and one metropolitan of the non-united Greeks. The education and instruction of the Catholic youth are mostly in the hands of the clergy. There are five academies for higher studies; a lyceum at Erlau, and a university at Pesth with a library of 70,000 volumes, an observatory, &c. Protestants are admitted into these establishments, and the instruction is gratuitous. The Protestants have many *gymnasia;* the non-united Greeks have two. The Hungarian contingent to the Austrian army consists of twelve regiments of infantry and ten of cavalry; in all, 64,000 men; to which, in cases of emergency, is added the *Insurrection*, which, in 1808, amounted to 40,000 men. The annual revenue from the domains, the *regalia*, and taxes, amounts to from 30 to 40,000,000 guilders. The expenditure is small. The peasants pay the county officers; they also supply the provisions for the army, at a price fixed in 1751, which is much below the market value. In the free cities and privileged districts, the officers are also paid by the communes. Most of the public institutions have considerable funds; and the Protestants are obliged to defray the expenses of their worship. There is no public debt.

See doctor J. A. Fessler's *History of Hungary*, in German, ten vols. (Leipsic, 1815 et seq.), and *History of the Magyars*, by count Mailath, three vols. (Vienna, 1828); Beudant's *Mineralogical and Geognostical Travels in Hungary, in the Year* 1818, four vols. (1822); Bright's *Travels in Hungary* (1814.)

Hungarian Literature has received but little attention from foreign scholars, but has been treated by Hungarian writers, in the Hungarian language, by Spangar (1738), Bod (1766), Sandor, Budai, Papai, Toth, Jankowich, and others; in Latin, by Cswittinger (1711), Rotarides (1745), Bel, Schier, Haner, Schmeitsel, Wessprémi, Pray, Wallasky, Simonchich, Belnai, Tibold, &c.; in German, by Windisch, Seivert, Kovachich, Engel, Fessler, Miller, Schwartner, Schedius, Lübeck, Rosler, &c. The character of this singular people, their peculiar views of life and the world, are strikingly displayed in their literature, which also bears traces of the constant struggle which they have had to carry on ever since their first entrance into Europe. Nor is it deficient in qualities which render it important in a scientific light. The language suggests many unexpected views in regard to the philosophy of language in general; the poetry, particularly the lyric, excels in beauty, and works are not wanting in the department of natural history, Roman and Grecian antiquity, philology, history in general, the laws of nations, and other subjects. The Hungarians, impelled partly by the spirit of adventure which characterised the middle ages, and partly by the demands of assistance from foreign princes, emigrated from Asia, and spread over the disconnected pro-

vinces of Eastern Europe, until they reached a country with a settled constitution and a consolidated government (Germany, under Henry I. and Otho I.), which set bounds to their warlike incursions (in 955). From this period, the attention of the people, previously occupied with external subjects, began to be turned inward upon itself. The civilisation of the Magyars commenced, and advanced so rapidly that, in less than fifty years, the domestic and foreign security of the kingdom was established, industry awakened, milder manners introduced, and the nation prepared for the reception of Christianity; but, instead of being contented with this gradual progress, and awaiting the natural development of the national character, Stephen I. and most of his successors imprudently endeavoured to hasten the progress. The discontents caused by this policy were increased by the frequent admission of foreigners into the clerical and noble orders, by the exaltation of the clergy to the highest rank in the kingdom, by the preference given to the Latin over the national language, not only in the church, but in judicial proceedings, legal documents, and forms. These circumstances gave rise to an opposition, which, though checked, in some degree, by the prudent measures of the princes of the house of Anjou, in the 14th century, was afterwards continually renewed. The Latin language predominated in this country, as it did at that time in every country which had reached any degree of civilisation; but in Hungary it has, from obvious causes, continued prevalent to the present day, while in other nations it is employed only as an instrument of learning. The use of a dead language in common life, as well as on all scientific subjects, could neither be advantageous to the language itself, to the general improvement of the people, nor to the national literature. Notwithstanding these disadvantages, some buds of literature from time to time unfolded themselves, and native genius, though chained, would sometimes attain distinction; yet how much greater would have been the results, if the spirit of the nation had been permitted a free development of its peculiarities, under the influence of national manners! As early as the eleventh century, several monastic and episcopal schools were founded, and the students were numerous. In the twelfth century, many young men, particularly those destined for the church, were sent to Paris, where the university had just been erected. In the beginning of the thirteenth century, the first *studium generale* was established at Wesprim, a university modelled after that of Paris: it was much frequented. This *studium generale* was afterwards revived, and at a later period one was established at Buda. In 1473, the printing press was brought into Hungary. In the sixteenth century, the number of schools was much increased, particularly among the Protestants; and the situation of the country would have been very different, had not the Protestants been persecuted by the Catholics, and had not Hungary fallen under the sway of the Hapsburgs, and thus become merely a part of a great empire, to whose true interests little attention was paid. We cannot refrain from expressing a wish, that one consequence of the present commotions in Europe may be the establishment of an independent government in Hungary, whose natural advantages are at present paralyzed by a government unable to provide for the general welfare of the heterogeneous mass under its rule. Hungary can boast of many distinguished writers in the Latin language, at this early period; but this exotic literature had so little influence on the nation at large, that, though it had attained a high degree of excellence in the time of Matthias Corvinus, yet many of the higher officers of the kingdom could neither write nor read, in the reign of his successor, Ladislaus II. (1491). In the eleventh century, with the introduction of Christianity in Hungary, the Latin language acquired the ascendency in the church, in schools and public affairs; yet the Hungarian was used in commerce, in the camp, and even the resolutions of the diet were first drawn up in Hungarian. When the missionaries addressed the people in Latin, an interpreter was usually present; and there are several relics of poetry, sacred eloquence, and state papers, extant in Hungarian. A new impulse was given to this language, on the accession of the house of Anjou to the throne of Hungary. The Latin was indeed still the language of church and state; but the Hungarian became the language of the court. Documents were drawn up in Hungarian, and the *Hungarian oath*, in the *corpus juris Hung.*, dates from this time. The Holy Scriptures were translated into Hungarian; in the imperial library of Vienna, there is a MS. translation, of 1382; and, in spite of the violent opposition of the *inquisitores hereticæ pravitatis*, several translations were published. In 1465, Janus Pannonius wrote a Hungarian grammar, which is lost. The sixteenth century was favourable to Hungarian literature, through the religious disputes in the country, the sacred, martial, and popular songs, as well as by the histories written and published for the people, and the multiplied translations of the Bible. It then reached a degree of perfection which it retained until the latter part of the eighteenth century. A large number of grammars and dictionaries were printed from the sixteenth century to the eighteenth. But the hopes of the further development of Hungarian literature were not realised; a Latin period again succeeded, from 1700 to 1780, during which time numerous and finished works were composed in Latin by Hungarian writers. In 1721, a Latin newspaper was established, and the state calendar, which commenced in 1726, was, and continues to be in Latin. In 1781, the first Hungarian newspaper was printed in Presburg. At present there are two, one in Vienna, the other in Pesth. When Joseph II. died, many violent yet bloodless changes were made in the Hungarian constitution, and several laws were passed in favour of the Hungarian language. It was required to be used in all public proceedings. Courses of lectures were delivered in Hungarian in some of the schools, and it was taught in all of them. Several periodicals were established, Hungarian theatres erected in Buda and Pesth, many works were written on the grammar of the language, &c.; but these measures were gradually pursued with less zeal. See Bowring's *Specimens of the Poetry of the Magyars*.

Hungarian Language. The language of the Magyars, as spoken and written at present in Hungary, is a phenomenon in philology well worthy of study, and the knowledge of it unlocks rich stores for the philosophical historian and philologist. As the Magyars belonged to the great tribe, which was spread from the south-western part of Asia on the Caspian sea, to the north-eastern extremity of Europe, to Finland, of whose branches transplanted to Europe (as the Usi, Polovtses, Avars, Chasars, Petschenegues, &c.), only one has taken deep root; so the Magyarian language is derived from the language which is common to that great tribe, and which comprises the Semitic and Finnish tongues. This view, as Niclas Révai has shown, settles the long dispute among the learned, whether the Hungarian language is allied to the Lapland and Finland language, as some maintain (Rudbeck, Eccard, Hurr, Hell, Sajnovits, Gatterer, Schlozer, Bunching, Hagen, and particularly Gyarmathi), or to the Oriental languages, as others assert (Otroktosi, Œrtel, Kal-

mar, Versegi, and chiefly Beregszaszgi). Differing from all European languages except the Finnish, in internal structure and external form, the Hungarian nevertheless was obliged to express with the Roman alphabet, adopted with Christianity, all the Asiatic shades of sounds. The Hungarian distinguishes, like the inhabitant of the East, the simple vowels from the prolonged: the forms, *a, e, i, o, ö, u, ü*, are pronounced sharp, whether they are long or short: the latter have always a fuller, more protracted pronunciation; they are designated by an accent, *á, é, í, ó, ő, ú, ű*, and are very different from the former; for instance, *kar* (the arm), *kár* (the injury); *kerek* (round), *kerék* (the wheel), *kérek* (I beg). The Hungarian is destitute of diphthongs, like the Oriental languages, and marks the finest distinctions of sounds, particularly of consonants, with great accuracy. Sounds peculiar to it are those of *gy, ny, ly, ty*, where the *y* is the consonant *j*, but closely and intimately connected with the preceding consonant. At the beginning of a syllable, the Hungarian never allows more than one consonant; foreign words which begin with two consonants, are, in the mouth of a Hungarian, separated by a vowel put before them (e. g., of *schola* they make *iskola*), or put a vowel between (as from *král* they make *király*). The Hungarian has a fixed law for the order of the vowels, like the Finnish (according to Rask and Sjœgren). It has, like that language, no distinction of sex whatever, but a rich declension, with numerous inflexions of cases, which seem to prove, very evidently, what James Grimm, in his German Grammar, ventured to hint, that the inflexions of cases originated from additions of particles to the root. The difference of absolute and relative forms in languages, which is founded in the laws of our mind, and traces of which are found in many languages (in the Semitic languages, as *status constructus* and *absolutus;* in the Gothic, Anglo-Saxon, and other Teutonic languages, according to James Grimm, as strong and weak forms; in the French and English, in the absolute and conjunctive pronouns, &c.), manifests itself in all the declensions and conjugations so distinctly and characteristically, as to present the greatest difficulty to foreigners, who meet with this distinction throughout in no other languages. The conjunctive possessive pronouns, as well as prepositions, are expressed as suffixes. Family names are considered as adjectives, from which they mostly originated, and hence are put before the baptismal name; for instance, Bátori Gábor, as if it were the Batorish Gabor, the Gabor of the Batori family. The beautiful proportion between vowels and consonants, the accurate shadowing and full articulation which every syllable requires (the Hungarian suffers no mute vowels, so called—no *e mute*), and the fixed succession of vowels, give to the Hungarian language a character of magnificent and masculine harmony, in which it will bear a comparison with every other. The richness and expressiveness of its various forms give it great energy; the regularity of its inflexions and compositions, in which it is to be compared with the Sanscrit, makes it clear and distinct, and its infinite power of composition gives it the means of increasing its stores beyond almost any Western language. If it is actually not so much developed, this is easily accounted for from two circumstances;—that Sclavonic, Servian, German, modern Greek, Walachian, Italian, &c., are spoken in the country at the same time; and that it was, for a long time, excluded from public transactions, from the church, and even from conversation, where German and French took its place. Yet it found some opportunities to develop itself, partly at the courts of the Hungarian kings and magnates, particularly those of the princes of Transylvania; partly in the county diets; partly in the diets of the realm, where the native language could not be entirely suppressed; partly in the polemic writings at the time of the reformation, and finally in the re-action produced by the law of Joseph II., to use only the German language in public business, which, aided by the then existing liberty of the press, produced many excellent Hungarian works. Among the great number of Hungarian grammars, the first which appeared in print was that by John Sylvester (or Erdosi), in 1539. Another in the Hungarian language was published at Vienna, in 1795, by a society of learned men. That of Gyarmathi (Klausenburg, 1795), is, in many respects, excellent. Verseghi published a Grammar in German, in 1805, at Pesth, and, in 1816, in Latin. The most useful for a beginner is that first written by John Farkas, and remodelled by Francis Pethe, of which many editions have been published. Jos. Márton published a Grammar (the latest edition, Vienna, 1820). The most complete and most critical, probably, is that begun by Niclas Révai (2 vols., Pesth, 1809); death prevented the author from completing it. Among the later dictionaries are those by Jos. Márton and Benj. Mokry, in Latin and Hungarian.

Hungarian Wines. Hungary produces a greater quantity of wine than any country except France. The annual product of Hungary Proper and the territories belonging to it may be calculated at from 20,000,000 to 30,000,000 eimers (of about 15 gallons each). In general, the Hungarian wine contains much alcohol and little aqueous matter. The finest is the Tokay, which is produced in the Hegyallya (the country around the Tokay hills), in the county of Femplin, lat. 48° N. The dried grapes are carefully separated from the others, and three sorts of wine are obtained. The best is the *Essence*; this is the oily juice, which runs of itself from the fruit, without any pressure. When this ceases to run, the grapes are moistened with common Tokay-must, and trod out; this gives the *Ausbruch*. A second infusion of common Tokay-must, on the remaining grapes, pressed by the hands, gives the *Mászlás* (Masklass). In the same way, the Ausbruch and Masklass are prepared in the mountains of Menesch (county of Arad), and Ausbruch in Rust (county of Œdenburg) and St George (county of Presburg). Hungary also produces excellent table wines, of which the best are those of Buda, Erlau, Selksard, Wessmély.

HUNGER; the feeling of a want of food. When the stomach has digested and disposed of the food and drink which it contained, its peculiar nervous power is destroyed, and some time is necessary before it collects it again. This time is shorter in proportion as the individual is healthy, young, strong, and active. As soon as this nervous power is restored, the activity of the organ is again awakened, and produces a longing to eat, which we call, in its first degree, *appetite*. If this is not gratified, it gains strength, and becomes hunger, which, if not appeased, turns to voracity. Appetite is not a disagreeable feeling, but hunger is an ever-increasing pain, on account of the ever-increasing sensibility of the nerves of the stomach. To some men, whose stomachs are morbidly sensitive, the first desire for food is unpleasant, and if this desire is not immediately gratified, they are seised with griping pains in the parts about the stomach, which, if not appeased, are followed by sudden weakness, and even fainting. If hunger is not allayed, a dreadful state of the body ensues, and finally death. After long-continued hunger, the blood becomes weak, acrid, and thin, on account of the want of materials to compensate for the nutritious matter expended in the support of the

body; hence the whole body becomes lean and weak, bloody fluxes take place from all parts, as well as violent irritation of the nervous system, caused by the excessive sensibility of the nerves of the stomach, which at length extends to the whole region of the abdomen, is carried to a still greater height, and produces pain over the whole body, sleeplessness, convulsions, raving madness, until at length death puts an end to the scene.

Hunger Cure; a mode of curing diseases by the greatest possible abstinence from food; so much only being allowed as is requisite to keep the patient alive. The food is diminished by degrees, and, in the period of convalescence, is increased in the same way, with much precaution, as many patients, unable to resist their appetite, have died in consequence of a slight indulgence. This mode of cure has been found of great use in the case of deep-rooted complaints, which baffled the powers of medicine. It is used, particularly in connexion with frequent unctions of mercury, in obstinate cases of syphilis, when even the bones have become affected; and the cases in which this severe remedy has produced brilliant successes are numerous. It is considered, in Germany, as indispensable to the cure of inveterate syphilis. The patient is kept in a well closed room, receiving only a little bread and water, and soon loses his appetite, owing to his debilitated state produced by the mercurial unctions. His bed-linen is never changed, nor the room aired; indeed, a very trifling draught of air has proved fatal. The salivation is very great, and it is surprising that man can live at all in such a state as these patients are often in. The cure generally requires about three weeks.

HUNINGEN, or HÜNINGUE; a place in Alsace, department of the Haut-Rhin, half a league from Basle. Louis XIV. caused it to be fortified by Vauban, in 1679. In 1814, it was besieged by the allies, and, by the peace of Paris, in 1816, it was stipulated that the fortifications should be destroyed, at the urgent solicitations, as is said, of Basle. It now contains but 1000 inhabitants, and is of no importance.

HUNNIADES, John Corvinus, waywode of Transylvania, and general of the armies of Ladislaus, king of Hungary, was one of the greatest commanders of his time. He fought against the Turks heroically, and, in 1442 and 1443, gained important advantages over the generals of sultan Amurath, and obliged that prince to retire from Belgrade, after besieging it seven months. In 1456, he obliged Mohammed II. also to relinquish a siege of the same place, but died September 10, in the same year. He was, at this time, regarded as the hero of Christendom, and not less esteemed by his enemies than regretted by his friends. He left two sons, the younger of whom, Matthias, was afterwards king of Hungary.

HUNS; a nation of Northern Asia, which probably belongs to the Finnish race, and formerly led a nomadic life on the frontiers of China. The history of the Huns can be traced no farther back than the reign of Me-te, a son of Teu-man, on account of whose inroads the Chinese built their great wall, B.C. 209. (See De Guigne's *Histoire des Huns.*) This powerful people, not entirely destitute of civilisation, were masters of Mongolia and the greatest part of the north of Asia, as far as the Caspian sea and the borders of Thibet, and were long dangerous neighbours to the Chinese. But, internal dissensions having weakened the power of the Huns, the Chinese gained a dominion over them, although doubtful and interrupted, and put an end to their northern kingdom, A. D. 93, and to their southern in the fifth century. After the destruction of the old kingdom of the Huns in the north, a part of this people retired to Youen-Pan, near the sources of the Ural, not far from the residence of the Bashkirs. The country was afterwards called Tanjou or Great Hungary. According to the accounts of the Roman geographers, however, the Huns, in the time of Augustus, were settled near the Caspian sea. These new comers had the Alans on the south-west, and occupied the frontiers of the Roman empire. While they were spreading to the north and south, they carried on wars in the east with the Chinese. But when the To-pa or To-ten, who dwelt on the river Amour, spread themselves on the west of China, and drove the Siempi from their possessions, at the beginning of the fourth century, the Huns again pressed towards the west, to the Caspian sea and the Pontus Euxinus. After a bloody struggle with the Alans, they united with them, to pass the Pontus Euxinus, and attack the Goths (376), and thus produced the general irruption of the barbarians. They were accompanied by many tribes whom they had overcome, and they reduced all the nations on the north of the Danube. They sometimes made war on the Romans, and sometimes served in troops under their standards. Rouas compelled the Romans to pay tribute. His nephews, Bleda and Attila, sons of Mandzuk (Mundiuk), succeeded him in 443, and turned their arms against the Germans and Sarmatians. After the death of Bleda, Attila continued his conquests, and founded one of the most extensive kingdoms known in history. (See *Attila.*) Soon after his death (453), the empire fell to pieces; but the hordes of Huns long lived on the north of the Danube and the Palus Mœotis, until at length the people and the name became extinct.

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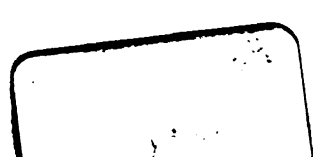
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